

ADVANCED Management

November 1961



LONG RANGE PLANNING

Advanced Management

Progress Through Enlightened Management

CONTENTS

- | | | |
|--|----|----------------------|
| Steel Faces the Common Market | 5 | by R. Conrad Cooper |
| Full-Spectrum Management Improvement | 17 | by Rhea H. West, Jr. |
| Invention Rights of Employees | 9 | by W. Sidney Taylor |
| The Field Service Story | 14 | by Harvey M. Rose |
| The Council of Independent Managers—S.A.M.'s Blueprint for the Future? | 19 | by P. N. Ekholm |

DEPARTMENTS

- | | | |
|--|----|--------------------------------------|
| S.A.M. Editorial | 4 | Walter Mitchell, Jr. |
| Conference News | 23 | |
| University Division News | 24 | Harold Fischer |
| Management Bookshelf | 25 | |
| Selection Readings in Production Control | 26 | Edward M. Mazze and Charles S. Stein |
| Senior Chapter News | 28 | |
| In-Basket | 30 | |

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SOCIETY FOR ADVANCEMENT OF MANAGEMENT

IN THE AUGUST ADVANCED MANAGEMENT, it was pointed out that improved management and more capital investment are the only two workable tools with which American business can meet the rapidly growing competitive potential of industry in the European Common Market. If we do not maintain our world competitive position we can become a second rate power through suffering blows just as definite and disastrous as those which beset Great Britain with the dissolution of the British Empire.

In this issue there is an article by H. Conrad Cooper, Vice President of the U. S. Steel Corporation, detailing in more specific terms the future in one of our most important industries. From time to time we plan to publish similar articles detailing the specific impact of these developments on various other aspects of the American economy.

In the meantime, it may be appropriate to take note of two organizations whose work we hope can reinforce this need for added investment. The first is an organization called "Invest-in-America".¹ The leaders of it are Ray R. Eppert, President, Burroughs Corporation; Walker Cisler, President of the Detroit Edison Company; Birny Mason, Jr., President, Union Carbide Corporation; Casimir Sienkiewicz, President, Central-Penn National Bank, and Alexander Biddle, Executive Vice President, Philadelphia-Baltimore Stock Exchange.

This program seems especially appropriate in a country that already has an estimated 15 million stockholders; where more and more hourly laborers are becoming owners of equities with every passing week. Here is a "people's capitalism" generated by a spontaneous and healthy process. This is quite different from that under which the people

theoretically own industry in a communist state, but have no real stock holder vote — and very little to say about where an individual may work or what he may do.

The other organization is the National Thrift Committee, originally backed by the Savings Banks and Savings and Loan Companies. It is co-sponsored by a wide cross-section of leaders from business and education; encourages thrift meetings, committees and seminars in many communities and schools.

These organizations encouraging thrift and investment can rightly be regarded as complementary and representative of two important phases of a program to keep the United States competitive.

WALTER MITCHELL, JR.

1. "Invest-in-America", 155 E. 44th St., New York, N. Y.
2. National Thrift Committee, 121 W. Wacker Drive, Chicago, Illinois.

STATEMENT REQUIRED BY THE ACT OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, JULY 2, 1946 AND JUNE 11, 1960 (74 Stat. 208) SHOWING THE OWNERSHIP, MANAGEMENT, AND CIRCULATION OF ADVANCED MANAGEMENT published monthly at New York, New York for October 1, 1961.

1. The names and addresses of the publisher, editor, managing editor, and business managers are:
 Publisher, S.A.M., 74 Fifth Ave., New York, N. Y.
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5. The average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the 12 months preceding the date shown above was: 15,158.

MARION CUSICK
 Business Manager

Sworn to and subscribed before me this 30th day of October, 1961
 Notary Public, State of New York

(Seal)
 (My commission expires March 30, 1962)

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This is a condensation of the statement of R. Conrad Cooper, Executive Vice President, Personnel Services, United States Steel Corp., before the Subcommittee on The Impact of Imports and Exports on American Employment, of the House Committee on Education and Labor, August 14, 1961. He tells of the effect of foreign competition in a specific industry. (For a discussion of the effect of foreign competition on the United States in a broad sense, see "European Common Market—Test of U.S. Management," published in the July-August 1961 issue of ADVANCED MANAGEMENT, page 4.)

by R. Conrad Cooper

E IN UNITED STATES STEEL CORP. strongly believe in a free and growing international trade which no industrial nation can turn aside except at its own economic and political peril. The health of the domestic economy is dependent upon free access to world markets and to world sources of raw materials. Furthermore, unwillingness, or inability, of the friendly nations of the Free World to do business with one another would be sad preparation indeed for calculated and unfriendly trade pressures from Russia and other communist nations. And, of course, every nation must trade with others in varying degrees as a matter of survival.

The United States is the greatest trading nation on earth. In 1960 we had a favorable balance with respect to foreign transaction of almost \$5 billion in terms of merchandise and about \$2 billion in terms of commercial services, making a total of some \$7 billion. Foreign trade makes a substantial contribution to our economy and is responsible for a great deal of employment in this country.

Against this generally favorable background . . . there are some trends in the recent record of foreign competition in steel that are disturbing to steel producers in this country.

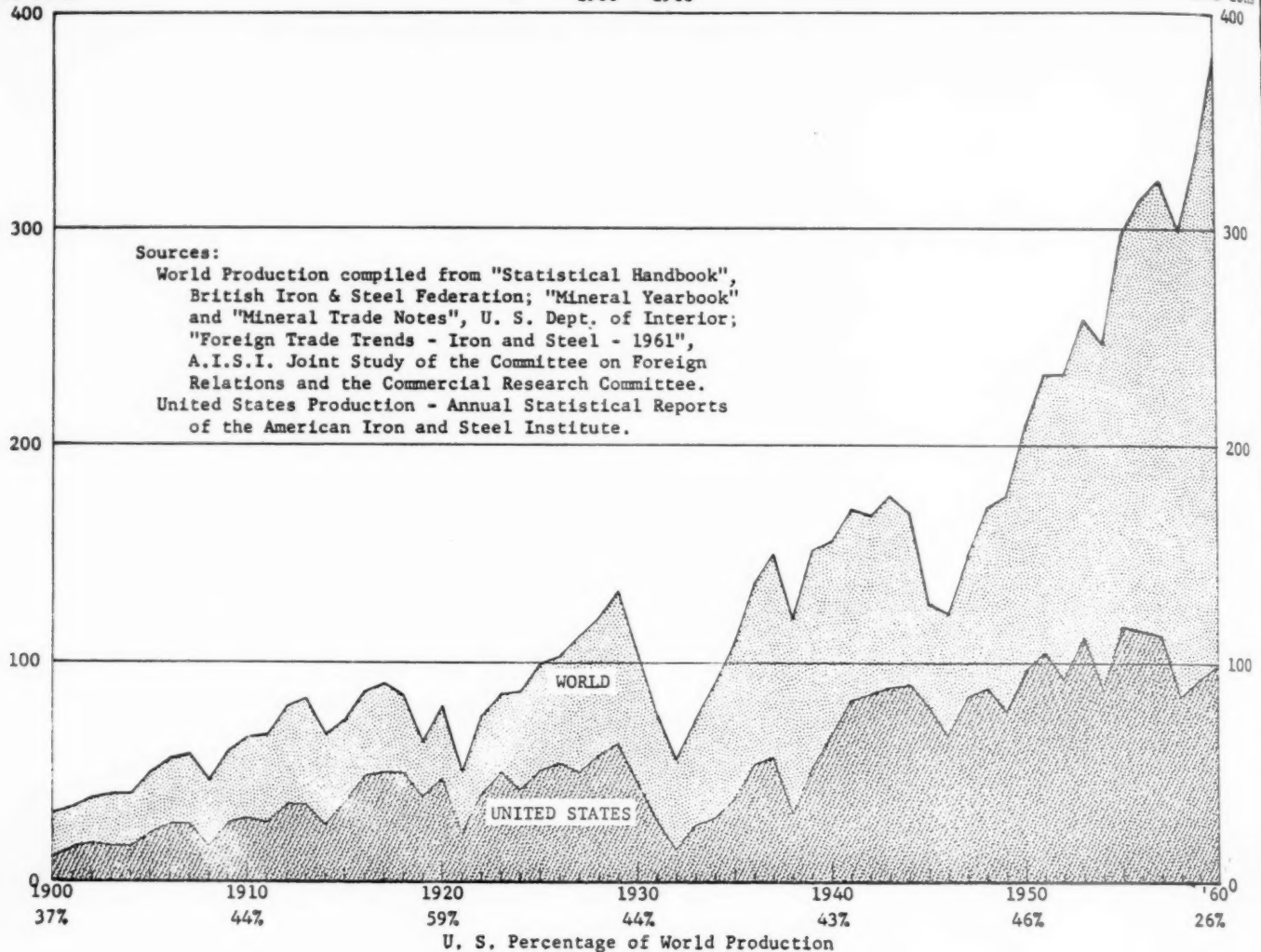
STEEL INGOT PRODUCTION

in the WORLD and the UNITED STATES

1900 - 1960

Million
Net Tons
400

Million
Net Tons
400



The Changing Export-Import Balance

... Since 1950 steel ingot production in the rest of the world has been increasing rapidly. ... The United States' share of total world steel ingot production has declined by nearly one-half, from 46 per cent to 26 per cent.

Paralleling this development, the tonnage of steel exports from the United States declined from 15 per cent of world steel trade in 1950 to only 7 per cent in 1960, while steel imports in the United States increased from 1½ per cent of domestic supply in 1950 to almost 5 per cent in 1960. ...

... The United States, for the first time in modern history, became a net importer of steel in 1959 and remained one in 1960 and also thus far in 1961. ... The adverse trend in steel is observable early in 1958 — the year before the steel strike. ...

The impact of steel imports and exports on jobs varies product by product. Between 1950 and 1960, the import percentage of the domestic supply of reinforcing bars increased nearly sevenfold, from 3.6 per cent to 24 per cent.

For pipe and tubing the change was from one-half of 1 per cent to 7 per cent, fourteen times the 1950 percentage, and for wire and wire products its was from 2 per cent to about 18 per cent. During 1960 imports accounted for 31 per cent of American market for wire rods, 43 per cent for nails and staples, and 53 per cent for barbed wire.

One of the few remaining advantages steel producers of the United States have maintained over foreign mills in recent years is that of relatively quick delivery on a broad range of product specifications. This has been particularly true in the light flat rolled categories, such as cold rolled sheets and tin plate. As a result, American exports have tended to be heavily concentrated in such products.

Expansion Outside the United States

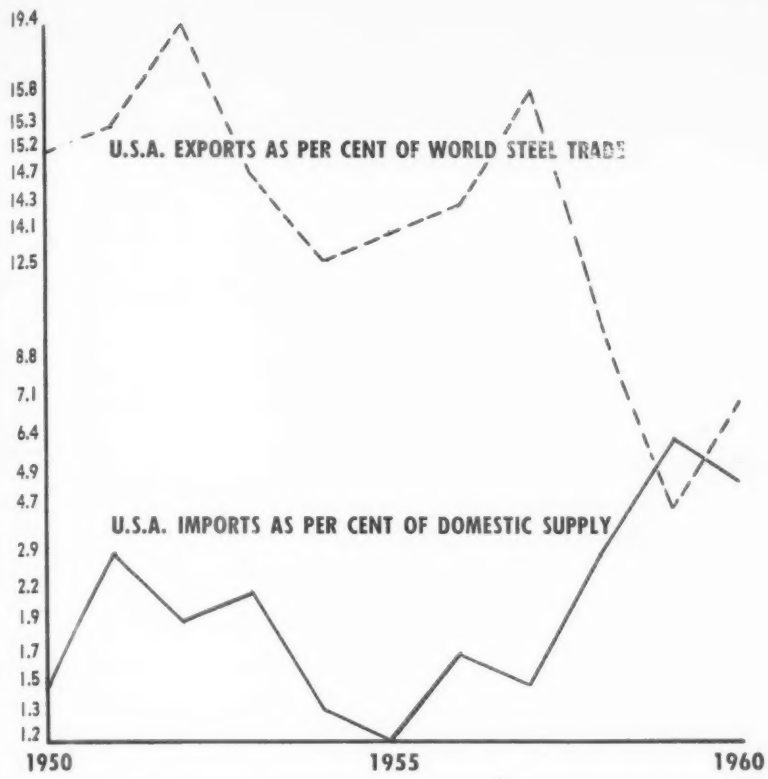
However, there is currently an extensive program of rolling mill construction in Europe, and reliable sources estimate that capacity for cold rolled sheet products on the Continent will show an increase of approximately 60 per

Million
net Tons
400

300

200

100



R. Conrad Cooper is Executive Vice President, Personnel Services, United States Steel Corp., Pittsburgh. He began his career in 1926 as a field engineer for a cement company and, later, for a consulting industrial engineering firm. In 1937 he joined the Wheeling Steel Corp., in an executive capacity, and, in 1945, the United States Steel Corp. of Delaware, now the United States Steel Corp. with which he is still affiliated but with higher administrative responsibilities. Mr. Cooper has a B.S. degree from the University of Minnesota. He is a member of S.A.M. and of several other professional organizations.

cent in the three years ending in 1963. . . . A similar development is taking place in the case of wide flange beams and several other major steel products. . . . The United Nations Economic Commission for Europe estimates world production will more than double to 695 million tons by 1972-75 period. . . .

Such projections as these are, of course, uncertain of realization; but the great steel expansion of the past decade in Europe and Japan is evidence that the projected rate of growth has already been attained. . . .

Labor Cost

Prominent among the reasons for these trends are the persistence of our competitive hourly employment cost disadvantage and the narrowing of our competitive advantage in productive efficiency. Hourly employment costs in the steel industry of the United States are from three to nearly seven times total hourly employment costs in the countries of the European Coal and Steel Community, and the United Kingdom, and Japan. These relationships generally worsened between 1952 and 1960. . . . Each 1 per cent increase in steel worker employment cost in this country would have to be matched by 7 per cent in Japan *simply to prevent our competitive disadvantage from worsening.*

Considered here are total employment costs, not just the wages, or the payroll portion thereof. They include so-called "fringes" and employee benefits and are quite comprehensive. For example, among the contents of steel hourly

employment costs for the European Coal and Steel Community countries, in addition to direct wages, are the following: Christmas presents; vacations; holidays; contributions to social security; expenditures for coal, gas, and electricity made available free-charge or at reduced rates; expenditures for housing; and free distribution or reduced price sale of clothing, shoes, and drink. . . .

Many U. S. manufacturers . . . are being affected by the same adverse trends which the steel producers are fighting and with comparable negative influences on job opportunities. This emphasizes again the need for all U. S. industry to maintain a competitive cost position in the intensifying international struggle for markets. . . .

New Efficient Facilities in Europe

Much foreign steel capacity was destroyed during the War and has since been rebuilt. . . . Many steel plants in these countries are, therefore, quite new and are fully as modern and as efficient as the best in this country. The techniques of foreign steel producers are catching up with those of steel producers in this country, and of course, we have no monopoly on ingenuity. As an example of foreign steel-making techniques we understand that one French plant will soon be equipped with a charging system for the blast furnace activated entirely by magnetic tape. . . .

I doubt that any responsible person would challenge either these trends or their implication. Even if the steel producers in this country were as much as twice as efficient

as those of Western Europe and Japan, this would not be nearly enough to overcome a competitive disadvantage in hourly employment cost of three or four to one. And there are many signs that this is true not only for the steel industry but for industry generally. . . .

The United Nations "World Economic Survey — 1959," the most recent data available, estimates that annual output per worker in the United States increased at a rate of 2.3 per cent since 1950. Every other major steel-producing country in the Free World except the United Kingdom experienced a greater annual rate of increase in its total output per worker. The rates for Germany and Japan were 5.5 per cent and 5.4 per cent, respectively, close to two and one-half times the rate of the United States. Other rates of increase ranged from 4.5 per cent for Italy and 3.7 per cent for France, down to 2.6 per cent for Belgium. . . .

To summarize, . . . steel producers in this country have a substantial employment cost disadvantage in foreign trade, and the historic superiority of our productive efficiency is being steadily reduced as foreign steel producers match the best of the efficient, high-output facilities in this country. The challenge will become more serious. This is the only sensible forecast one can make at this time.

We are working to improve our own competitive abilities — in response to challenges at home as well as from abroad.

One of our most important competitive tools is research. We, as well as other steel producers in this country, recognize this and are expanding activity in this field. United States Steel has long been engaged in research and now has more than 1,700 people who are searching out ways to make new and better steel products and ways to improve the production processes and use raw materials more efficiently. Likewise, other steel companies have major research programs under way. Many firms also supplement their own research through contracts with universities or research institutions. Moreover, there is a great diversity of viewpoint and emphasis which aids in speeding technical progress in all areas — whether they be office routines or production. This competitive research includes the exploration of bold, new ideas.

Key examples of research in United States Steel are in the areas of more efficient utilization of leaner ores, use of oxygen to speed the steel-making process, development of ultra-high-strength steels in the range of 250 thousand to 300 thousand pounds per square inch tensile strength, and thinner and stronger tin plate which will result in savings to consumers. Fine-sized steel wire with strength of 600,000 pounds has been developed and tested in the laboratory and is being commercially evaluated for special purposes. Fundamental research has demonstrated that the theoretical potential strength of a steel is well over 1 million pounds per square inch.

Steel companies in this country have also been investing heavily in new and improved facilities. Since 1946 they have spent almost \$14 billion for these purposes. Such investments in modern efficient tools are essential if the steel companies are to meet the competitive challenge from other materials as well as from producers abroad. It is clear that although the expenditures for new and improved facilities vary from year to year the trend has been definitely upward. . . .

In this effort we would welcome a more reasonable, cooperative, and realistic attitude on the part of the union leaders. The total cost of an hour's work in the steel industry has risen fantastically from an average of 91 cents in 1940 to about \$4 today for wage employees, an increase equivalent to more than 7.3 per cent per year compounded. Extra pay for premiums, incentives, and cost of living, plus payments for time not worked, plus payments to provide for employee benefits — so-called "fringes" — were equivalent in 1960 to almost 60 per cent of the average job class rate compared with only about 8 per cent in 1940. . . .

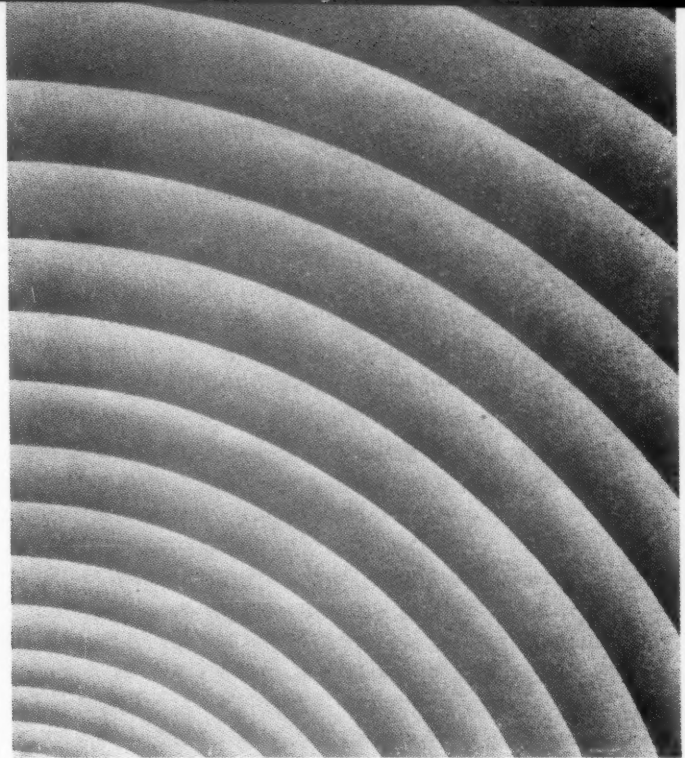
The union has been the moving force toward pricing steel workers in this country out of their jobs. The same thing is happening in certain other industries. . . .

Since 1953 Japan, Italy, West Germany, France, England, and Canada have each had a greater growth rate than we have. . . . In each of these free nations relatively more of their output was earmarked for new plant and equipment than in the United States.

. . . One important way in which our government can promote economic growth and modernization is by correcting the inadequacy of depreciation allowed in the calculation of taxable income. . . . Illustrative of the seriousness of the deficiency in depreciation are the results of a recent Treasury Department survey of a large number of corporations throughout the nation. Twenty steel companies participating in the survey indicated that depreciation deductions permissible for tax purposes averaged only approximately two-thirds of the amount necessary to maintain their tools of production intact. The other industrial nations in the free world have more realistic depreciation laws than those in the United States. . . .

There is a tremendous opportunity for the steel producers in this country to serve world markets, which are growing faster than our own markets here at home. We are not now realizing our potential in these overseas markets. To achieve that potential . . . we must make our costs competitive — and in a great variety of ways we are working to that end. This will help us greatly in creating jobs by selling more overseas while at the same time competing effectively against imports. In a larger sense, we must have a growing and healthy economy in the United States to provide a high level of employment throughout the steel and other industries.

by W. Sidney Taylor



Full-Spectrum

Management

Improvement*

A growing dilemma is the tendency to substitute automaticity for imaginative questioning about the basic objectives, plans, and operations of the enterprise itself. In some areas, inefficiency is rapidly being replaced by INSTANT inefficiency.

— the author

IN THE LAST 40 years, mankind has traversed the Machine Age, the Jet Age, the Atomic Age, and now the Space Age. Today, all four ages overlap. However, the Space Age has ushered in a rate of progress that places an entirely new challenge before the management profession. As J. Lewis Powell, author and lecturer, points out:¹

In 1830 a tremendous thing happened. Man broke the "oat barrier." He invented the steam engine. In one stroke, he replaced the oat burner with the coal burner. For the first time in 49,800 years he was able to travel faster than the muscles and digestive system of a horse. By 1910, the first military airplane had reached the incredible speed of 42 miles per hour. Towards the end of World War I we achieved speeds of 150 miles per hour. At the end of World War II, 470 miles per hour was a classified secret. Then in 1945, the curve of technology zoomed upwards on all fronts. By 1957, 1,600 miles per hour was achieved and today we are talking about speeds of 25,000 miles per hour and space travel.

*This article is a condensed modification of an article titled "System Simplification" published in the January/February 1961 issue of the *Journal of Industrial Engineering*, publication of the American Institute of Industrial Engineers, Inc.

1. Powell, J. Lewis, *Collapse of Time*, a lecture given at the U. S. Army Management School, Ft. Belvoir, Va., 1961.

This tempo of progress is not confined to transportation. It covers the entire spectrum of human activity. In automation,² for example, the impact is unique. Top managers are becoming increasingly aware that automation and control devices, while important, constitute only one dimension in total systems management. A growing dilemma is the tendency to substitute automaticity for imaginative questioning about the basic objectives, plans, and operations of the enterprise itself. In some areas, inefficiency is rapidly being replaced by INSTANT inefficiency.

Installing an electronic instrument panel in a 1925 Maxwell, for example, will not increase the car's mileage or speed. Similar logic applies to a corporation or a government agency. Someone must also lift the "corporate hood." Someone must inquire into how and why the components of the system operate. Weakest link in an organization may not be its data processing or controls but, rather, the inability of top managers to see (even with automation) new operational opportunities and combinations — ones which can significantly change the nature and progress of the business.

In today's era of technological leapfrog, efficiency engineering at work levels is often overtaken by system or top-management events. System-level decisions, or break-

throughs, tend to make obsolete thousands of subordinate work-level processes or components before they can be standardized, simplified, or automated. In this environment, many organizations find themselves "polishing brass on ships already sunk by technology."

What Is System Simplification?

System simplification is a Space Age management concept designed to minimize the growing complexity, cost, and change overtaking many of our governmental, business, and industrial operations. Underlying philosophy of the concept is described by the expression "Why do it BETTER, if you don't need do it at ALL?" In aircraft, for example, when reciprocating engines are replaced with jets, there is no need to simplify propeller problems.

System simplification is an expansion upon principles long employed in industrial engineering and work simplification.³ However, compared to work simplification, system simplification is aimed at a different level of management and is a different kind of simplification. While work simplification is directed toward methods, work processes, and office or factory productivity, system simplification is oriented toward improvement of total business objectives.

2. Buckingham, Walter, *Automation: Its Impact on Business and People*, Harper Bros., New York, 1961.

3. Lehrer, Robert N., *Work Simplification*, Prentice-Hall, Inc., Englewood Cliffs, N. J., 1957.

SYSTEM SIMPLIFICATION — Comparative Techniques:

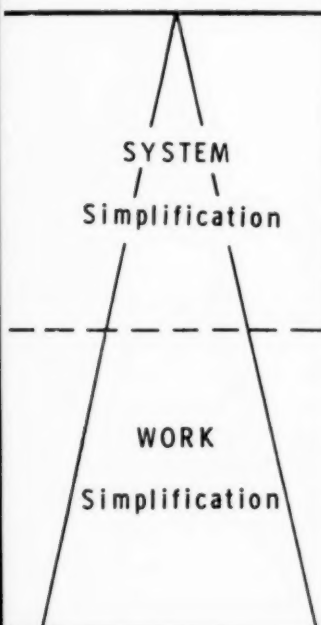
	Prime Mover (WHO)	Decision Impact	Application Areas (WHERE)	Objective or Goal	Technique (HOW)	Approach	Measurement	Improvement Potential
	Top or Middle Management <u>EXECUTIVES</u>	Megabuck down to \$10,000.	Objectives Plans Policies Organization Functions Budget Programs Controls	Optimize total system Operations Performance Force Distribution	Documentation Simulation Interrogation	Top Down or Operations Research Management Concept Ask BIG Questions ??????	Determine the significant measures of total system effectiveness	\$100 to \$1 ratio of return on program (potential)
	Foremen First Line Supervisors and Employees	\$10,000 down to \$50.	Shop or Plant Productivity Methods Procedures Work Processes Office / Plant Layout Work Flow	Improve functions or components Increase Productivity Labor, time or motion economy.	Flow Process Charts Work Count Work Distribution Man-machine Charts Work Study	Bottom-up management concept Maximum employee participation at WORK levels.	Develop standards & indices of efficiency or productivity Work Measurement	\$10 to \$1 return on business industry government program

Figure 1

plans, structure, policies, operations, controls, etc. However, system simplification does not replace work simplification; it complements the latter. In effect, system simplification begins where work simplification leaves off (Figure 1). Combination of the two techniques means full-spectrum management improvement.

What Are the Techniques of System Simplification?

System simplification is applied to total business objectives and operations *prior to* simplification of procedures or processes at work levels. Automation, mechanization, or standardization are considered secondary goals. Briefly stated, three phases are involved: documentation, simulation, and interrogation (Figure 2).

System Documentation: To comprehend a large system involving thousands of man-machine-environment relationships, it is necessary to portray or document the major objectives, structures, components, workloads, and resources involved. This documentation introduces the expression "system comprehension." Like the electronics engineer who must diagram complex circuitry, the systems

manager must document all significant elements to facilitate conceptual understanding.

While management authorities have long discoursed on span of control in organizations, a similar problem, magnified many times over, exists in system comprehension. A missile or space system, for example, may involve 100,000 interacting components. A corporation accounting system may involve similar complexity.

Documentation will vary with the system or organization. A typical chart or control room may reflect *system* objectives, organization, functions, and manpower; structure, component network and linkages; milestones or phasing items; budgets and costs; workloads and workflows; layout, deployment maps and facilities; performance standards; problem areas, etc.

Flow diagrams, chart rooms, and pictorial aids constitute important stepping-stones toward total system comprehension. The U. S. Air Force, for example, recently established Panel Rooms using photo-projected charts to present a panoramic picture of world-wide weapon system operations. These rooms reflect at one focal point the entire

SYSTEM SIMPLIFICATION : the technique:

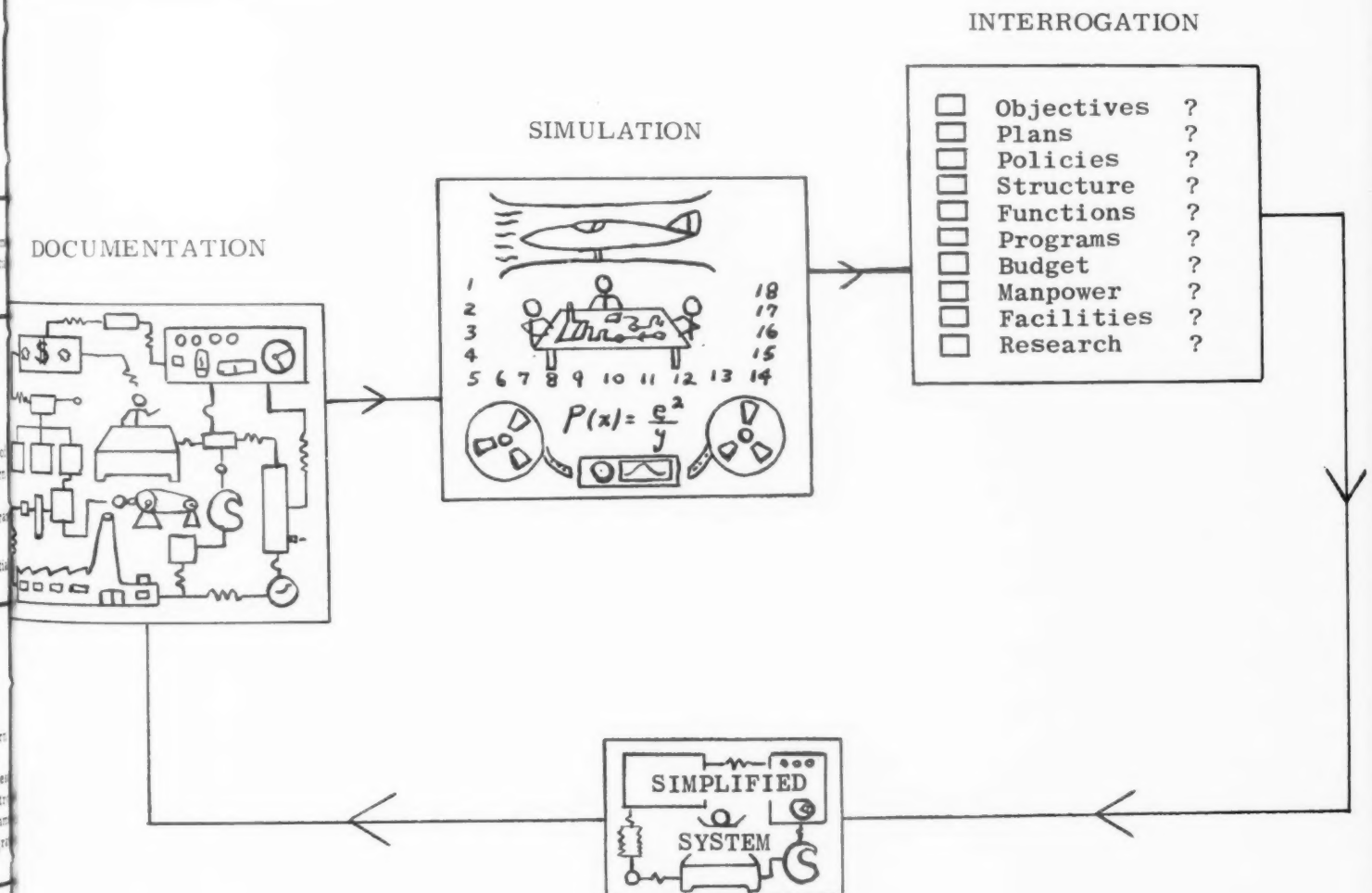


Figure 2



W. Sidney Taylor is a member of the Monitoring System Group, U.S. Air Force, and a specialist in the modernization and improvement of large-scale, man-machine-environment systems. He received his education at the University of Pennsylvania (Philadelphia) and at American University (Washington, D.C.). He has been active in a number of automation and system management groups, and he is a member of the Operations Research Society of America.

spectrum of management concerning billion-dollar weapon systems. Included are programming data, unit locations, number of air vehicles per squadron, manpower and budget requirements, etc. Problem areas are identified and "get well" dates assigned.

However, these rooms involve more than problem-solving or pictorial displaying of statistics. They are a valuable monitoring device for bringing project officers, data, and ideas together at one point. Working groups conduct periodic reviews on weapon system performance, costs, and combat readiness. The reviews increase awareness of new technology and operational change. They insure integrated responsiveness to management problems or opportunities as, or often before, they occur.

A similar approach has been employed in industry. Du Pont in Wilmington, Del., has established a theater-like chart room where top management can see significant data and trends on the corporation's total operation. This display involves 400 framed charts, each suspended from overhead tracks. Another example is United Air Lines' "Room with the 14,000 mile view" (at Denver) which gives a pictorial perspective of total system operations including daily airline traffic and corporation profits.

System documentation tends to induce new perspectives, ideas, and improvements at top-management levels. Awareness of total system interactions and performance has a profound impact upon decision-making. Expanded potential for innovation and creative thinking processes comes when top executives possess a complete picture of system operations.

Important to recognize is that a single system improvement, modification, or decision can eliminate the need for 10,000 procedures, actions, or simplifications at work levels. The most direct route to real improvement — and cost reduction — is through simplification from the top down. For this reason, total system documentation becomes a powerful tool and primary step in system simplification.

System Simulation: System simulation or model-building generally reflects the organization in quantitative form. In this process, performance can be measured, and improvements can be manipulated, tested, and priced on paper, or in small-scale form, without risk, or costly investment, or interference in actual operations.

Model-building is not new. It is used in many branches of science, engineering and business. However, electronic data processing has opened up entirely new possibilities for simulation or mathematical model-building of an entire business, system, or operation.⁴

System Interrogation: It is not always necessary to conduct long, costly efficiency-engineering studies "from the bottom up" to improve a large-scale system. The right question at total-system level can often uncover dramatic potential for improvement. Imaginative skepticism about total business objectives, plans, and operations at throne-room level can often reveal real opportunities and surprises for top management.

System interrogation assumes many forms. It may involve a systems survey or a management audit. Generally, interrogation means orderly inquiry into the objectives, plans, and operations of the total business or enterprise. Interrogation complements documentation and simulation by providing a panoramic review of those elements in the system which cannot be portrayed or quantified easily.

The American Institute of Management, for example, utilizes a management audit check list containing around 300 questions to appraise the effectiveness of large organizations.⁵ This technique, developed by Jackson Martindell, includes a 10,000-point evaluation system which has been used to rate religious organizations, colleges, hospitals, institutions, and large corporations. Metropolitan Life Insurance Co. and other large organizations have developed similar techniques. In any event, the audit or survey check list must embody questions carefully selected to fit the enterprise, operation, or system being studied.

Much of the potential in system interrogation lies in the tendency of many of today's large-scale man-machine systems to become obsolete from the moment they leave the drawing board. A 1961 airplane designed with 1906 components would be a costly, if not dangerous, vehicle to operate. Nobody would want to fly it. However, many of today's government, business, and industrial organizations contain similar componentry. Obsolete policies, plans, or functions are often buried under decades of bureaucratic inertia, protocol, or custom. Costly operations are not only adopted, but standardized (and worse still, in some cases — automated).

In this context, improvements at procedural levels are not enough. It is possible to have methods, office or plant layout, or worker productivity at 100 per cent efficiency — in a system which *itself is subessential, obsolete, or ill-conceived*.

Areas of Application

While system simplification has broad application in business or industry, its greatest potential exists in government. Many of our Federal institutions are based upon assumptions, laws, and concepts generated in an era of

4. *Management Control Systems*, edited by Donald G. Malcolm and Alan J. Rowe, John Wiley and Sons, Inc., New York, 1960.

5. *Manual of Excellent Managements*, Fifth Edition, American Institute of Management, New York, 1959, p. 171.

button shoes and gaslights. The present Civil Service System, for example, is based upon the Pendleton Act of 1883. Our post office, judicial, legislative, and fiscal systems have similar, if not older, origins. Many of our regulatory, taxation and economic concepts were conceived generations ago as temporary emergency measures.

The challenge of the Space Age is unique. On one hand, we are about to enter a golden era of power, speed, and productivity. On the other, we are confronted by ominous signs that man is becoming the victim, rather than the beneficiary, of his own ill-managed progress.

In transportation, for example, 40,000 Americans are killed each year by that deadliest of all peacetime, man-machine systems—the automobile. This slaughter comes largely from our inability to comprehend and improve the vast man-machine-environment relationships involved.

A similar situation is developing in administration. Growing complexity in taxation, social security, unemployment and health insurance, labor laws, interstate and foreign commerce, etc., threaten to convert us into a nation of clerks. In 1900, 1 employee in 40 was a clerical worker. In 1960, this ratio was 1 in 6. New laws and regulations (Federal and State) are generating paperwork complexity that challenges even the most modern of computers.

In product systems, Americans face a new poverty of plenty. In a gadget-cluttered, machine-dominated society,

people have little time for life, liberty, or pursuit of happiness. Most importantly, they have little time to ask big questions about an environment that 1) causes 20,000 suicides annually, 2) puts mental disease as the occupant of one out of three hospital beds, 3) creates juvenile delinquency in one out of five American youths, 4) induces 900,000 heart attacks, 5) consumes 500 million tranquilization pills—and then comes up with a national debt of \$290 billion!

These are not symptoms of procedural problems, but total system problems. Solutions involve a need for managerial rather than technological breakthroughs. In this process, simplification at system levels can revolutionize an entire business or industry. It is already happening. The transistor, electronic computer, guided missile, printed circuitry, magnetic tape, nuclear power and polio vaccine—all are examples of breakthroughs or gross simplifications having total system impact. Similar opportunities exist throughout business, industry and government.

Progress, however, is not achieved by technology alone. The prime mover is people. A business, industry, or government is run by its managers. Once these individuals achieve a better understanding of business objectives, forces and man-machine-environment interactions, revolutionary new concepts and quantum-jumps may be achieved. This is the primary objective of system simplification. ✓

The Vanishing Incentives

by ROBERT C. TYSON

Chairman, Finance Committee
United States Steel Corp.

INCENTIVES are being stifled in our land. The process has indeed been progressing for a quarter of a century or more. But for the past twenty years the stifling has been obscured and its evil consequences diminished or deferred by reason of the great war for survival and the insistent demands of the world-wide reconstruction years that followed it. To fight the fire in your house and repair the damage thereby wrought, you don't need the profit and loss motives or, at least, they manifest themselves in different forms. . . .

Over 50 per cent of corporate earnings—some three times the prewar rates—is now taken in taxes. Not only is this income taxed as earned, but it is taxed again when transferred as dividends to owners—the clearest case of double taxation to which no other form of enterprise is subjected. Dividends, which are all that owners get from their corpor-

ations, are a small part—less than four per cent—of the nation's income. Yet on this slim compensation to those who have risked their savings to provide the tools of production depends the functioning of our economy. . . .

Under the code the depreciation allowable in calculating taxable income must be based on prices, often paid years ago, for the depreciable items. But such amounts cannot at today's inflated prices possibly have buying power equal to that originally spent and thus be sufficient to enable the enterprise to just "stay even." The deficiency, which should realistically be regarded as depreciation, is thus treated as income and on that pretense over half of it taxed away. This is more than inimical to growth; it puts a tax on just keeping even. It directly handicaps all corporations having depreciable property and especially those heavily invested in long-life facilities. . . .

From the viewpoint of safeguarding our essential economic incentives the current trend of fiscal proposals is frightening. On the expenditure side the proposals are for more and more spending and giving; prudence is not too visible. And yet we had better be prudent! ✓

From an address before the Manufacturing Chemists' Association. Published here by special permission.

The Field Service Story

by Harvey M. Rose

Some problems of the manufacturer in maintaining adequate and reliable service policies within reasonable and profitable budgets.

WHAT DOES "field service" mean to you? If you are in the restaurant business "service" means the attention your waiters give the customers. If you are in retailing, "field service" refers to the manner of your salespeople or how quickly a parcel can be delivered. These two examples refer to service in the non-technical industry.

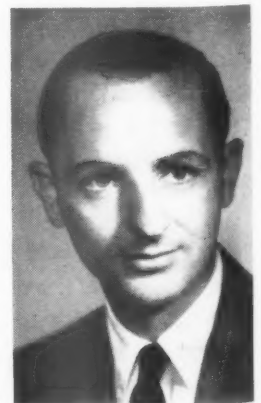
To those in a technical industry, "field service" usually means support of the product after it is in the hands of the user. It is given by the manufacturer of the product because the user cannot obtain the best utilization from the manufacturer's product for either of two reasons:

1. He does not possess the technical know-how.
2. The product is malfunctioning (no matter whose fault) and can be repaired only by the manufacturer's representative.

In this article we will discuss field service from the manufacturer's viewpoint.

Why Field Service?

The reason for service is fairly obvious. A manufacturer, a retailer, a restaurateur would soon be out of business if he failed to provide adequate service, regardless of whether or not he charged for it. In fact, many successful businesses today have built their reputations on reliable service policies. No manufacturer of an automobile will attempt to market his product in an area unless he has first established a complete service organization through his dealers. The success of the Volkswagen in this country was largely due to the fact that a potential owner could be reasonably certain of obtaining service in his immediate locale. When



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ADVANCED MANAGEMENT

buying a new automobile, the average potential buyer is well aware of his own inability to handle the problems likely to arise and therefore must be assured of the availability of immediate assistance, either from a garage or from the dealer.

One of the big hurdles a foreign manufacturer has to leap over in order to sell his product in the U.S. is the lack of a service organization. The U.S. customer demands a lot of service. Mercedes-Benz cleared this hurdle by making an agreement with Studebaker-Packard. More recently, France's Sud Aviation made a deal with Douglas Aircraft for sale of their Caravelle here, thereby gaining use of Douglas' vast sales and service organization.

A manufacturer of turret lathes usually starts his service before the sale of hardware by studying the potential customer's production needs or by calculating the return on the investment in new equipment; or, he might even lay out a new production arrangement. Service in the automotive and aircraft industries starts *after* the product has been delivered. In these industries the amount of service varies in direct proportion with the complexity and newness of the product.

Separate funds do exist in most government contracts for home office support but frequently these are underestimated and run out after a year. However, service must continue regardless, otherwise its importance is soon manifest in product failures and, subsequently, in no more contracts.

If the manufacturer fails to recognize the initially high service costs and properly account them, he may not establish his follow-on contract prices accordingly. The result, of course, is decreased profits. Home office service without direct charge can easily get out of hand or become lost in a general overhead account. If it is properly accounted for by use of separate charge numbers, it can either be amortized into future prices or used as a sales promotional device to acquire additional contracts.

Organization and Operation

The organizational structure of a field service department will do much to contribute to the effectiveness of its purpose; *i.e.*, the support of the product in the hands of the user. At the XYZ Corp., the field service department is divided into four areas of responsibility (Figure 1).

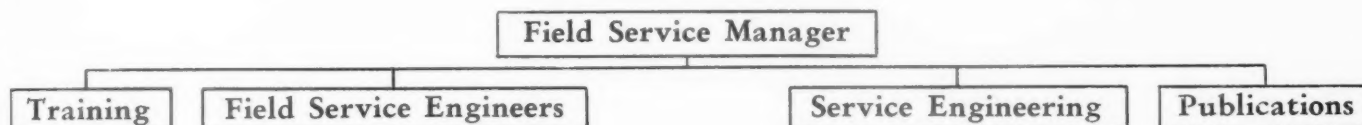


Figure 1

The Cost Problem

A manufacturer of today must supply field service to the customer or face the possibility of committing business suicide. The reasons given above indicate the amount of service needed and essentially that dictate suicide will be the result if service is not available. The gas turbine helicopter, the electronic computer, the automated milling machine . . . these and other relatively new products in their infancy require a great deal of the manufacturer's aid before they can walk alone.

One of the problems the manufacturer has is the cost of supporting the product in the hands of the customer, or "in the field." If the product is very new, the service costs are of a developmental nature. For a new aircraft, the cost of the contractor's field representatives is actually small compared to that of the home office staff of engineers who are expending time to support the new aircraft. Furthermore, these home office costs during the initial period of delivery might never be amortized in the selling price of the product.

As a development expense, they might perhaps be picked up in the price of the product on follow-on contracts. From management's viewpoint, the problem is a frightening one. They watch the cost of field service climb but hesitate to impose such costs on the buyer. They fear the buyer's objections and what competition might do.

This type of breakdown is recognized as the functional plan of organization as opposed to the product form or production-functional form. Each of the four groups is responsible for a separate function. Many companies integrate their sales and service work in their organizational structure. At XYZ, the service and sales departments are separate and distinct all the way up to the president of the corporation. Although there is a need for close cooperation between the two departments, XYZ management feels that by organizationally divorcing the two functions the interests of the customer will be better protected. The service department is in a disinterested position to appraise the maintainability and reliability features of a new model. It is difficult for a sales department to do likewise when faced with the responsibility of bringing in the sale. The final effect of such a split-up results in products which are reliable and, above all, easily maintainable by the customer simply because the department's prime responsibility coincides with the user's desires.

Field Service Engineers

The field service engineers establish first-line contact with the customer. They are located wherever XYZ products are used. Their purpose is to provide on-the-spot assistance to the user in the operation of the product. This covers a multitude of evils ranging from a periodic cleaning of the equipment to a decision that will perhaps send the equip-

ment back to the plant. Sometimes they call on the home office for specialized field help, such as an electronics design engineer. Usually the field service-type people are recruited from within the company, where they have amassed years of experience on the product.

In-plant customer training is an attempt to make dealers or users of the new product more effective when they return home. XYZ management is vitally interested in having their product, which is in the hands of the user, perform to the maximum capabilities for which it was designed and in the shortest possible time. This, then, is the objective of customer training. The benefit of previous experience on the newer models is made available to the trainees first through classroom and then through actual instruction.

Much of the information secured from the field service engineer's reports serves to guide future engineering designs. This data is tabulated by a service records group within service engineering on mechanical data processing equipment so that the history of any one small component can be gathered together in a matter of minutes.

Service Publications

Service publications — primarily the preparation of handbooks of installation, operating, and maintenance instructions — forms the fourth group within the field service department. Concurrent with product delivery must be the various handbooks which give the user all the detailed instructions he needs to use the product. In view

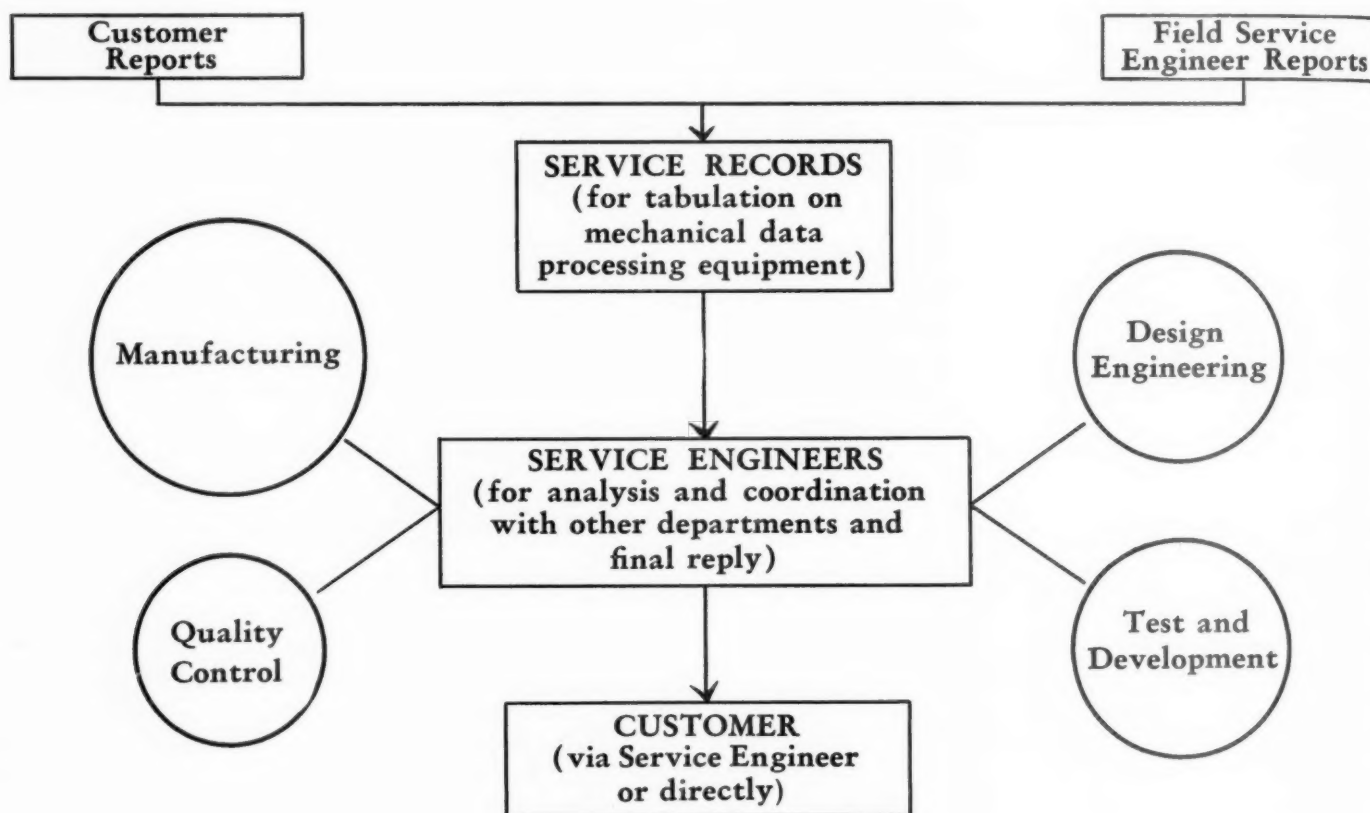


Figure 2

The length of a training program varies, depending upon the product being covered and whether it is a salesman's or a mechanic's course of instruction.

Service Engineers

While the field service engineer has the ability to understand the customer's problems, there are times when he will be unable to solve all of them. For this reason, a group of service engineers is employed at the home office, as part of service engineering, to resolve a portion of the problems or at least suggest how they might be handled. A feedback system is thus established between customer and factory. Graphically portrayed see Figure 2.

of the nature of the problems presented, the actual task of publishing a new set of handbooks is carried on jointly by publications personnel, customer, engineering personnel, and outside printing organizations. Essentially, it is the task of specialists: technical writers, editors, and illustrators.

Summing Up

The field service story is a young one; recognition by manufacturers that technical field service was big business began in the early '30s. Today, field service budgets can run into thousands on any one product. You have just had a glimpse of why we have field service and how it can operate successfully in a medium-sized mythical company.

by Rhea H. West, Jr.

Invention Rights of Employees

Without innovation, American business cannot maintain its competitive vigor. But innovation sometimes leads to intricate legal questions of ownership of an invention, a process, or a trade secret — with the employer and his employee caught in a web of inter-related circumstances. This is the problem at which the article that follows is aimed. While the author is a teacher, not a lawyer, the assumptions and inferences of patent law he cites are evidence of his great familiarity with the subject.

THE PROBLEMS to be considered in this study include inventions and discoveries which the employee is hired to make or is not hired to make, when there is no express contract regarding inventions or when there is a contract. The problems will first be discussed in general terms. Then citations of authority will follow to substantiate each situation. Collateral problems such as use of customer lists and of agreements "not to compete" will also be considered.

Generally, a person who is employed by another for non-inventive work but who does invent is entitled to patents although his inventions result from work for which he is employed. But he is not entitled to the ownership of

the patent if, at the time of the employment, or subsequently, he agrees to convey the patent to another. Such an agreement to convey may be found in the specific terms of the contract of employment or in the circumstances surrounding the employment, or in the nature of the work done, and or in the relation of the parties during the employment. That is, for the employer, say, to be entitled to the patent, the contract does not have to provide so specifically. Whether or not the inventions of the employee are to belong to the employer is a question that must be decided upon the facts in the individual case.

The fact of employment does not infer employee agreement that his employer is to own patentable ideas which are discovered in the course of, or as a consequence of, the work which the worker is employed to do. Even if, in this instance, the employee uses the tools and facilities of the employer in developing the ideas, the agreement is not inferred.

If, however, the worker is employed to do experimental work for inventive purposes, it is inferred ordinarily, although there is no specific agreement, that the patentable ideas arrived at through the experimentation are to be owned by the employer. Inference here is even more clear when the worker is employed to achieve a specific result which the invention accomplishes. On the other hand, if he is employed merely in a particular line in which he is

an expert, inference is that the inventions he makes while he is so working belong to the employer.

The fact that the time used by the employee in perfecting a patent should have been devoted to the employer's affairs does not entitle the employer to the patent. This assumption applies even though the employee uses the employer's tools improperly.

Suppose, however, the facts do not show an agreement in which the employer is to own the patent and that the invention is made by an employee who uses the employer's facilities for the purpose of experimentation and invention as a part of the work for which he is employed. Here, it is reasonable to infer that the employer is to have a right to use, without charge, the patented device or process in the regular course of business in which the employee is employed at the time of the invention.

In the absence of an agreement to the contrary, an employee under a general contract of employment is vested with the ownership of his inventions. If there is no express or implied agreement as to the employee's ownership, the mere fact of employment gives no right to the invention to the employer (*Solomons v. United States*, 137 US 386) — even though to perfect his invention the employee 1) uses his employer's property (*Houghton v. United States*, 23 F2d 386), or 2) receives the assistance of others in his employer's pay (*Barlow Seiling & Manufacturing Co. v. Patch*, 232 Wis. 220, 286 NW 577), or 3) takes time which should have been given to his employer's business (*Gear Grinding Machine Co. v. Stuber*, 282 Mich. 455, 276 NW 514), even though it can be said that the inventive power was incited by knowledge necessarily derived from the business (*National Development Co. v. Gray*, 55 NE 2d 783).

If There Is an Agreement to Sign . . .

On the other hand, if there is an agreement to assign, or if an agreement may fairly be implied from the terms of the employment contract, the employer is entitled to the inventions of the employee (*Guth v. Minn. Mining & Mfg. Co.*, 72 F2d 385).

The provisions of a contract under which the employer is to have the inventions of his employees are not contrary to public policy — unless the provisions are limitless in extent of time and subject matter of invention (*Guth v. Minn. Mining & Mfg. Co. Supra.*). If the employee is hired to do experimental work or to invent, it is universally held that the fruits of his work belong to the employer; if the employee patents inventions under these circumstances, the courts will force him to assign those patents to the employer (*Houghton v. United States, Supra.*). And if there is a contract to assign the inventions to the employer and if the inventions are patented after the employee leaves the employment, the employee will be required to assign them if it can be shown he made them while he was employed under the contract (*Wege v. Safe Cabinet Co.* 249 Fed 696).

If there is no contract to convey the invention, and if the invention is made with the use of the employer's materials or time paid for by the employer, the employer has

a non-exclusive right to use the invention (*Barton v. Conolly Copper Co.* 71 F2d 381). If the invention is an improvement on an item the employer may manufacture and sell, the employer may use the invention, and he is not required to compensate the employee. However, the employee may license others to sell the invention or he may sell the patent (*Flannery Belt Co. v. Flannery*, 86 F2d 42).

A trade secret is a method or process of doing something or the use of a specific thing in a manner that is not generally known. A trade secret may or may not be patentable; the owner, however, must deem it a secret. A problem over trade secrets arises when a person who is employed to work with the secret attempts to reveal the secret to another. Whether or not the employee has contracted to keep the secret, the courts will prohibit, by injunction, giving or selling the secret.

When a Third Party Uses a Trade Secret . . .

An example of a trade secret is the ingredients of Coca Cola. When a third party uses the secret, he is liable for damages after he has notice that it is a secret (*Salmon v. Hirtz*, Ct of Ch of N.J. 1885, 40 N. J. Eq. 400).

In early common law, agreements "not to compete" were held to be invalid because they were considered a restraint on trade. Later the courts approved of these agreements under limited circumstances. The contract, for example, must involve the sale of a business and must be limited in time and space. The whole agreement must be a reasonable one. The courts will strike down agreements whereby a person contracts away his right to make a living (*Diamond Match Co. v. Robber*, 106 NY 473).

Another problem arises when an individual is employed by a business and the main contract is with the employee—such as a laundry driver or an outside salesman. Most courts hold that if, for example, there is a written customer list, the former employee will be enjoined from calling on the customers whose names appear on the list (*Stern-Berg v. O'Brien*, 48 N.J. Eq 370).

Each proposition cited is the majority opinion in the United States. For the sake of brevity only a few cases are cited. To be noted, therefore, is that the law varies in each jurisdiction and that local law should be ascertained for each state. ✦

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Council of Independent Managers...

S.A.M.'s Blueprint for the Future?

An entirely new scope and challenge in S.A.M.'s goal toward further advancing progress through enlightened management may be at hand. The advance may come through a pilot operation known as the Council of Independent Managers (C.I.M.), whose program emphasis is on entrepreneurship. While currently a subgroup of S.A.M.'s Milwaukee Chapter, the Council, with its progress to date and potential for future development, has significant implications for the Society as a whole. Even now, after only a few months' operation, the C.I.M. has attracted interest among other chapters, members of which are inquiring about the possibility of organizing a similar subgroup as a means of increasing their local organization's contribution to the over-all aims of S.A.M.

How did the C.I.M. come into being? What needs are its leaders trying to meet? These questions can best be answered by P. N. Ekholm, Vice President for Small Business on the S.A.M. Board and one of the leaders in the pilot operation. Here, then, is the story as Mr. Ekholm sees it, a story told with a search for the truth in appraising the Council's current activities and the hurdles yet to be crossed.

• • • •

The C.I.M., which has been active for several months, developed as the interests of the members of an extension course at the University of Wisconsin (Madison, Wis.) converged with plans of the national S.A.M. Briefly, the members of the course—which was designed for persons from small-sized businesses and was under the direction of Professor William Breese—wanted to continue their association with each other. Simultaneously, S.A.M. was seeking a program which would include greater participation from persons in small- and medium-sized businesses.

Meanwhile, the Society's Milwaukee Chapter took on the overlapping goals of the two groups as a pilot operation. Then noting that the regular S.A.M. program was not entirely suited to the combined goals, the Chapter established the group as a subgroup of the Chapter, a decision which evolved in the formation of C.I.M.-S.A.M.

Premises of C.I.M.-S.A.M. must be considered in relation to the many dimensions and characteristics of the term *business*. Categories of the term might be stated briefly as including:

1. Size of business—ranging from organizations in which the individual's are self-employed to organizations classified as large corporations.

2. Functions of business—including manufacturing, distribution, service and research, and combinations of these functions. (Professional services, including legal, advertis-

ing, medical and consulting services to business, are excluded here as representative of a business organization.)

3. Functions and responsibilities of groups—varying with the size of the business and the type of ownership and including a) professionally managed but publicly owned companies; b) professionally managed but privately owned companies; c) professionally managed and privately owned companies, but not dominated or managed directly or indirectly by a larger company.

4. Motivation. In a broad sense, people can be divided into two groups—employees and employers. They can also be divided in relation to their needs for security. For example, people who seek the highest security, but not necessarily the highest rewards, might enter the Civil Service in government or enter teaching or seek posts in stable businesses such as banking, insurance, utilities, and large corporations.

Other End of the Spectrum

At the other end of the spectrum are persons who become independent salesmen on commission or agents of manufacturers.

In the work situation, people might be divided into several other groups in category 4: a) those who insist on being their own boss, regardless of pay; b) those who are their own boss and who develop some service, product, or activity and ask for no more; c) those who find ways of making an income with accumulation of money or

equities as the sole source of motivation to achieve security and power; and d) those who combine these motivations through innovations and enterprise and seek growth through the development of organization—such as becoming employed as a professional manager.

Other distinctions might be made, but the ones mentioned so far are enough to distinguish the difference between the entrepreneur and the professional manager. One can be an entrepreneur—that is, create products or exploit hitherto unknown needs—or he can be simply a trader, without too much need for management. On the other hand, one cannot possibly manage unless he has something to manage.

Nothing on Entrepreneurship

Today, almost all business education, regardless of level, consists of developing specialized skills—such as accounting, selling, engineering, and managing skills—but almost nothing on developing entrepreneurship. In fact, some authorities believe entrepreneurs cannot be created—they are born that way.

On the other hand, international studies seem to indicate that large segments of the population have capacities for enterprising but need to be discovered and encouraged. This need for being discovered and encouraged is now recognized and is being applied, as reported in work in underdeveloped countries. The subject has been studied widely at the International Industrial Development Center, Stanford Research Institute, Stanford, Calif.

Unfortunately for those of us who find ourselves in a mature economy which, until recently, has had no serious economic challenge, equity capital is now largely controlled through those institutions which seek the ultimate in security—banks, insurance companies, and investment companies. Even the new SBIC program will be dominated by these groups.

How do these many dimensions of the term *business* relate to C.I.M.-S.A.M.?

The constitution of the C.I.M. was developed to achieve group homogeneity among individuals with common experiences in size of business and motivation and in owner-operated organizations with two or more levels of management—the categories listed previously under 2, 3c, and 4d.

In the first year of the Council of Independent Managers, the program consisted of monthly meetings with a speaker. An attempt was made to limit the speaker's talk to an outline of the subject matter. His exposition was followed by rather lengthy question-and-answer periods. This plan was partially successful, and it seemed to satisfy some but not all the members of C.I.M., particularly the leaders.

Noted, for example, was that members would get together in small groups to exchange personal experiences and to consult with each other on specific current problems—after the meeting. Noted, too, was a remarkable dedication. Meetings were conducted not only once a month as prearranged, but sometimes oftener—such as for breakfast at 7:30 in the morning. But de-

spite this devotion there were difficulties. The lives of the men from small- and medium-sized companies seemed so completely tied up, little was accomplished toward developing the organization on a larger scale. Too much time was spent on planning the next month's meeting and too little on long-term programs, a typical practice in small businesses.

The second year, an attempt was made to depend on the resources within the group. At least half the meetings were conducted by members of C.I.M., either as individuals or as members of panels. These meetings, it was felt generally, were among the most successful. The same year an effort was made to upgrade the qualifications required of outside speakers.

Again the role of the speakers was limited to that of laying the groundwork for discussions and acting as moderator. Again, interest continued. Yet although many guests were brought to the meetings, the increase in membership was slight. Moreover, it took almost the whole second year to develop a suitable membership list. In fact, a membership drive has not been conducted to date.

Meanwhile, as in the first year, programs of the Milwaukee subgroup were partially handicapped by the fact that the chairman, who was one of the outstanding members, and his business became deeply involved in the development of a national holding company. Later this member became a leader in the transactions that followed.

Must Look Within Himself

More so than the first year, programs of the second year were heavily oriented to the individual owner-operator. Feeling was that achievement in owner-operator management is heavily dependent on the owner's personal efforts. Before the owner can find the time and interest in continuous management development, he must look within himself for the answers.

When a three-day conference of the National Council for Small Business Development was conducted, almost the entire C.I.M. board attended and participated. The group felt that while the sessions were interesting, there appeared no understanding of the heart of entrepreneurship. The emphasis seemed to be on the training of employees as managers.

Mention of this shift in emphasis is not to negate the importance of management training. The point is this: Small business involves much opportunity and high risk-taking in relation to size, a situation foreign to persons who have never experienced or who do not understand this way of business life. The difference is comparable to that between a shrew and an elephant. For the shrew, each day is a hazard, for the shrew must find two to three times its body weight in food.

During the year, three members, Edward Wisnewsky and Karl Bostrom, C.I.M.-S.A.M. Board members, and I wrote articles for the "small-business" issue of *Advanced Management*.

Mr. Wisnewsky and Mr. Bostrom also gave a number of talks before small business

groups, and Mr. Wisnewsky spoke before two American Management Association conferences and an S.A.M. meeting in Madison. Mr. Bostrom, who is a member of the Governor's Advisory Committee on Resource Development, participated with Mr. Wisnewsky in the annual Governor's Conference on Industrial Development in Wisconsin. Mr. Wisnewsky was the opening speaker, and Mr. Bostrom was a member of one of the panels.

Mr. Bostrom also attended the regular meetings of the Governor's Advisory Committee. He is the lone C.I.M. member on the Board. He is trying to foster more activity on behalf of small- and medium-sized business in the state and to gear the University, which is heavily oriented to agriculture, to more orientation toward industry and commerce.

For 1961-62 a new C.I.M.-S.A.M. program is being formulated. An effort will be made to build on the experience developed so far. Presumably the program will continue to include monthly meetings. Effort will be made to key in the more subtle needs of small-sized businesses rather than the teaching aspects of management development and skills.

In addition, effort will continue to develop a system of mutual exchange of experience on a formal and informal basis among the members. Effort may also be made to develop a counseling service both within the membership and without. The counseling service from outside the C.I.M. might come from retired men from small and independent businesses—men who have been successful and can give advice on business matters.

This year the C.I.M. has elected two young men as president and vice-president. The two officers will work as a team to spread membership participation. Hope is that a real drive for additional members will be made, for the potential membership could be as high as 200 or more in the immediate area. With such a group, other new members will certainly come, especially employees of the independent businesses represented.

A deep lack in the group, of course, seems to be the lack of skill and experience in association management. There is also a need for some paid manpower or secretarial services for the group. This need could probably be met if the membership became large enough to raise working capital for the organization.

May Serve as a Pilot Group

The problem resolves itself in the development of a rationale to create a program with powerful appeal. From that point on, getting new members and financing will not be a problem. Also from this point on, C.I.M. could truly serve as a pilot group for S.A.M.'s other Chapters which may be interested in developing similar groups.

In effect, then, the C.I.M.-S.A.M. is trying to develop a rationale which explores and emphasizes the entrepreneurial aspects of business. At the same time the group seeks to alert entrepreneurs to the need for continuous managerial development for

themselves and to the need for continuous and realistic self-appraisal of their activities —through individuals who are facing common problems.

At present, such a program must rely heavily on the experience within the group. Few professional managers or business teachers, for example, can understand the entrepreneurial nature of small- and medium-sized businesses. Professional managers and teachers can and do bring vital insight, experience, and skills to bear on strictly management problems. However, independent business owner-operators are like circus performers who regard those not within the circus as "outsiders." Heads of large corporations apparently respond similarly and for a good reason.

Session on a Special Subject

In light of these considerations, next year's C.I.M. program may have each monthly meeting begin at 6:30 p.m. However, this meeting may be preceded by an "inside-inside" session on a specific subject. This session may start at, say, 4 p.m. It may or may not be a preview of the subject of the regular meeting that follows at 6:30.

Plans for the next year may also include plant tours to observe the operation of the businesses of several of the members of

C.I.M. and to discuss the problems involved in the operation of those businesses.

The monthly newsletter which C.I.M. has been sponsoring will be continued. But in addition to the newsletter, other communications have been exchanged among the members through memos, letters, and other means when information was desired on special subjects.

May Develop TV Program

In the local community, an attempt is being made to establish a special public library service for small- and medium-sized businesses. Effort is being made, too, to interest a local educational TV station to develop a business-panel program. Soon, a more detailed report on the progress and plans of C.I.M. will be made for the national S.A.M. office.

Thanks go to the members of the Board for their fine cooperation in setting up the C.I.M.-S.A.M. As for me, the experience has been highly rewarding. I regret very much my having had to resign from the National Chapter because of a recent stroke I suffered. However, I want to assure our members I will continue to further and foster the C.I.M.-S.A.M. and the senior Chapter S.A.M. programs to the best of my ability.—P. N. Ekholm.



S.A.M. Rating of Time Study Films

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For complete details, contact the Research Division, Society for Advancement of Management, 74 Fifth Ave., New York 11.

Pictorial Report

S.A.M. Midwest National Management Conference

Chicago, October 6, 1961



Present among others at the Management Conference Luncheon were Saul M. Silverstein, recipient of S.A.M. Human Relations Award; James E. Newsome, Chairman of the Board of S.A.M.; Sidney N. Shure, recipient of the Professional Manager's Citation from S.A.M. Chicago Chapter. Standing, Walter Mitchell, Jr., S.A.M. Executive Director; Mario J. Sansone, President of S.A.M.'s Chicago Chapter.



Joseph B. Lanterman, President, American Steel Foundries, Chicago, speaks on "Factors Affecting the Successful Operations of a Company." At his left is Robert B. Curry, S.A.M. President and Conference Luncheon Chairman.



Among those who participated in the National Conference were Conference Committee Chairman Donald M. Ramlow, of A. T. Kearney & Co., Chicago; James E. Newsome, S.A.M. Board Chairman and Conference Keynote Speaker; Kenneth W. Allway, who conducted the workshop on "Work Sampling"; and Mario J. Sansone, S.A.M.'s Chicago Chapter.



Chester Kayne, Chairman of the Conference Registration Committee; Joe Gilhooly, President, Clearing S.A.M. Chapter; James E. Newsome, S.A.M. Chairman of the Board; and Henry Arends, S.A.M. Vice President, pose with registrars Shirley Domenk and Helen Shamblin.



Professional Engineer Phil Carroll, who conducted the Conference Workshop on "Where to Find Profit Leaks," visits with Alfonso J. Piacquod, of the Curtiss-Wright Corp., and with Milton M. Stone, of Arthur D. Little, Inc.



Kenneth W. Allway, of General Electric Co., Schenectady, N. Y., conducted the Workshop on "Work Sampling." With him are Robert S. Rice, of McGraw-Hill Publishing Co., and James R. Wilson, of E. I. du Pont de Nemours & Co.

Taylor Key and Other Awards Presented at Conference



L. A. Appley

Robert B. Curry



James E. Newsome

S. N. Shure

One of the highlights of the program of the Midwest National Management Conference held in Chicago, Friday, October 6, 1961, at the Palmer House, was the presentation of the Taylor Key award to Mr. Lawrence A. Appley, President of the American Management Association, the Human Relations Award to Mr. Saul M. Silverstein, President of Rogers Corporation, and the Professional Manager's Citation for the Chicago Chapter to Mr. Sidney N. Shure, President and General Manager, Shure Brothers, Inc., Chicago.

Mr. James E. Newsome, Chairman of the Board of S.A.M. and Production Manager, Johnson and Johnson, Chicago, made the Professional Manager Citation presentation. The Taylor Key and Human Relations Awards were presented by Mr. Robert B. Curry, President of S.A.M. and Vice President of Remington Rand, Inc. in New York.

Mr. Appley is exceptionally well qualified to receive the Taylor Key, which is awarded annually to one who is outstanding in the use of the philosophy of management formulated by Frederick W. Taylor, and is given to commemorate the work of Mr. Taylor.

It has been said that few men before Mr. Appley's time have gained acceptance in the field of management through their efforts in writing and speaking. There is no one today who has had such a wide audience and influence in clearly articulating the function of management as a distinct profession, and the importance of people in business enterprise. It is undoubtedly in these two areas that his major contributions to management lie. Mr. Appley has exceptional talents and abilities as a distinguished speaker, author, industrialist, lecturer, philosopher, humanitarian, and management statesman.

The Human Relations Award is made annually to an individual or to a group of individuals. The Award is in recognition of outstanding contributions and accomplishments in the advancement of human relations as related to the enhancement of the free enterprise system as measured both by personal satisfaction of individual workers and the economic stability of business in industry throughout the nation.

Mr. Silverstein's awareness of Human Relations in industry has gained national recognition during his association with Rogers Corporation. He personally conducted many of the regular bargaining sessions and has instituted several unorthodox approaches to human and employee relations. His philosophy has become an integral part of the firm's operation policy.

In recognition of the outstanding contributions made by Mr. Sidney N. Shure to the field of management in the Chicago area, he was honored by his S.A.M. Chapter in being presented the Professional Manager's Citation. Mr. Shure's accomplishments tell the story of the growth of a man and the company he founded. A classic example of the American free enterprise system, it traces the influence of S. N. Shure in building his company from a ham radio hobby into the world's largest manufacturer of microphones and a leading producer of high fidelity phonograph tone arms and cartridges. This growth was highlighted by the cooperation of Mr. Shure with the tremendous needs of the armed forces during World War II. For his war time achievements, Mr. Shure was awarded the Army-Navy "E" several times.

Presentations of the awards followed a challenging talk by Mr. Joseph B. Lanterman, President of American Steel Foundries at the management luncheon of which Mr. R. B. Curry, President of S.A.M., was toastmaster.

Other interesting talks were given by Milton M. Stone, Senior Staff Member, Arthur D. Little, Inc., Cambridge, Mass.; Alfonso J. Piacquad, Manager Industrial Engineering, Financial Services Dept., Curtiss Wright Corporation, Wood-Ridge, N. J.; Robert S. Rice, Managing Editor, Factory Magazine, McGraw-Hill Publishing Co., New York; and Mr. James R. Wilson, Consultant Supervisor, Operations Research Group, E. I. duPont de Nemours & Co., Wilmington, Delaware.

Afternoon workshops were conducted by Mr. Phil Carroll, Professional Engineer, Maplewood, N. J., on the subject of "Where to Find Profit Leaks," and Mr. Kenneth W. Allway, Senior Engineer, General Electric Company, Schenectady, New York, on "Work Sampling."

Wiley BOOKS

MANAGEMENT MODELS AND INDUSTRIAL APPLICATIONS OF LINEAR PROGRAMMING

In Two Volumes. By A. CHARNES, Northwestern Univ., and W. W. COOPER, Carnegie Institute of Technology. Illustrates all aspects of linear programming theory and includes numerical examples and explanations. Vol. I gives the necessary introduction. Vol. II draws on actual experience in managerial, economic, and engineering applications, unifying them under the theme identified as the idea of "model types". Vol. 1: 1961. 467 pages. \$11.75. Vol. II: 1961. Approx. 448 pages. \$11.75

PLANT PRODUCTION CONTROL, Third Edition

By C. A. KOEPKE, Consulting Engineer. Rewritten to include the latest developments such as the use of digital computers in production control, and the development of operations research in scientific management. Designed to be read and understood by all levels of management. 1961. Approx. 384 pages. \$11.75

TRAINING IN BUSINESS AND INDUSTRY

By W. McGEHEE, Fieldcrest Mills, and P. THAYER, Life Insurance Agency Mgt. Ass'n. Stress is on the role of training as a management tool, used to attain management's goals, rather than as an end in itself. Major techniques are assessed critically, and placed in their proper perspective. 1961. 320 pages. \$7.50

EQUITABLE PAYMENT

By E. JAKES. 1961. 336 pages. \$6.00

INDUSTRIAL DYNAMICS

By J. W. FORRESTER. An M.I.T. Press Book. 1961. Approx. 432 pages. \$18.00

Proceedings of the Second International Conference on Operational Research

Edited by J. BANBURY and J. MAITLAND. 1961. 810 pages. \$15.00

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University Division News

By HAROLD FISCHER, President

The 1960-1961 academic year was one of continued improvement and outstanding accomplishment for our University Chapters.

We are listing the Chapters that received recognition for their records of achievement during the year. Awards were presented at the Mid-West National Management Conference of the Society for Advancement of Management, Palmer House, Chicago, Illinois, October 6-7, 1961.

Remington Rand Performance Award is presented in the University Chapter Performance Awards competition to the leading chapters for their achievement in advancing the art and science of management through their programs of educational activities:

Cash Awards, Citations and Banners

Auburn Univ.	— 1st place
LaSalle College-Eve. Div.	— " "
Loyola Univ. of Chicago	— " "
New York Univ.-Day Div.	— " "
Ohio Univ.	— " "
Roosevelt Univ.	— " "
St. Norbert College	— " "
New York Univ.-Eve. Div.	— 2nd place
Los Angeles State College	— 3rd "
Univ. of Scranton	— 4th "
Louisiana State Univ.	— 5th "

Citations

Univ. of Pittsburgh	— 6th "
Santa Maria Univ. of P. R.	— 7th "
Rider College	— 8th "
Univ. of Mississippi	— 9th "
Lamar State College of Tech.	— 10th "

Newsletter Award of Merit is presented to the leading chapters in recognition of their accomplishments in contributing significantly to the advancement and understanding of the principles of the Society through their newsletters.

LaSalle College-Eve. Div.	— Evening Manager
Los Angeles State College	— The Spokesman
Louisiana State Univ.	— The Samlett
New York Univ.-Day Div.	— The Highlighter
Ohio Univ.	— The Quest
Roosevelt Univ.	— Management Advances
San Jose State College	— Intercom
Santa Maria Univ., Puerto Rico	— Newsletter

Special Activities Awards are presented in recognition of special activities of unusual merit and for which adequate credit is not provided in the Performance Plan.

Los Angeles State College	— "Senior Brochure"
Louisiana State Univ.	— "S.A.M. Seal Plan"
Univ.	— "Senior Chapter Development"

Loyola Univ. of Chicago	— "Christmas Display"
Ohio Univ.	— "Variety Show"
	— "Student-Bus. Exec. Conf."
Roosevelt Univ.	— "Business Analysis Project"
Univ. of Detroit	— "Study of Educational Patterns"
Univ. of North Dakota	— "Unif.-Bus. Exec. Conf."
Western Reserve Univ.	— "Careers in Business"

Senior Chapter Membership Award to the chapter leading in the number of graduating seniors who continue their membership in the Senior Division.

LaSalle College-Evening Division

University Chapter Promotion and Coordination Awards are presented in recognition of the Senior Chapter's achievement in advancing the art and science of management through the successful promotion and support of University Chapters.

Senior Chapter	Student Chapter
Chicago	— Loyola Univ. College
Clearing	— Bradley Univ.
Indianapolis	— Anderson College
Montreal	— Univ. of Montreal
Philadelphia	— LaSalle College-Eve. Div.
Richmond	— Richmond Professional Institute College of William and Mary
San Francisco	— Golden Gate College

Congratulations to all these Chapters for a job well done. We are proud of their accomplishments.

Many of our Chapters have been planning more extensive programs for this year. They know that a successful program requires good organization, thorough planning, and effective control. They are "learning by doing" and are developing through participation.

It is stimulating to know that many Senior Chapters already have taken action in their efforts to work closely with local and nearby University Chapters in developing their programs for the year. Conferences, for example, were arranged by Harris Zeitzev, Vice-President, University Chapter Activities of the Los Angeles Senior Chapter, for the Faculty Advisors of the seven chapters associated with the Los Angeles Chapters. Thomas J. Bowes, University Chapter Co-ordinator of the Philadelphia Senior Chapter, held conferences for the Faculty Advisors and student officers of the twelve University Chapters under the sponsorship of the Philadelphia Chapter. Howard Dearborn, Regional Vice President of the Mid-West Region sponsored a workshop for officers and Faculty Advisors for the University Chapters in his region. Carl F. Hazelbauer, Director of University Affairs for the Chicago Senior Chapter, and H. O. Wood, University Chap-

ter Co-ordinator for the Clearing Senior Chapter, have conducted a series of conferences with the Faculty Advisors and student officers of the eight Chapters under their sponsorship.

This advanced planning is sure to produce another great year for University Chapters.

V-List For Future Events

- ☐ Nov. 8-11, 1961 TIMS and Operations Research Society of America; joint meeting, San Francisco
- ☐ Nov. 16-17, 1961 Seminar, Mental Health and the Work Environment, University of Michigan, Ann Arbor
- ☐ Dec. 2-5, 1961 Visual Communications Congress, Jointly sponsored by the Society of Reproduction Engineers, the American Institute for Design and Drafting, and the American Records Management Association, Biltmore Hotel, Los Angeles
- ☐ Dec. 12-14, 1961 1961 Eastern Joint Computer Conference, Sheraton-Park Hotel, Washington, D.C.
- ☐ Dec. 14-16, 1961 Forum on Legal Questions Raised by Computer Use, Joint Committee on Continuing Legal Education, Statler-Hilton Hotel, Los Angeles
- ☐ Jan. 27, 1962 SAM Board of Directors Meeting, Philadelphia
- ☐ Feb. 12, 1962 First Indo-Pacific Management Conference, Manila
- ☐ Mar. 27-29, 1962 American Power Conference, sponsored by American Society of Mechanical Engineers, Sherman Hotel, Chicago
- ☐ Apr. 5-6, 1962 SAM-ASME Management Engineering Conference, Statler Hilton Hotel, New York City
- ☐ Apr. 7, 1962 SAM Board of Directors Meeting, Statler Hilton Hotel, New York City
- ☐ June 23, 1962 SAM Board of Directors Meeting, Asheville, N.C.
- ☐ Oct. 6, 1962 SAM Board of Directors Meeting
- ☐ Sept. 14, 1963 Celebration of SAM's Golden Anniversary
- ☐ Sept. 15-25, 1963 CIOs, 13th International Management Congress, N.Y.C.

ADVANCED MANAGEMENT

Management Bookshelf

Review of

THE PROCESS OF MANAGEMENT by William H. Newman and Charles E. Summer, Jr., Englewood Cliffs, N. J. Prentice-Hall, Inc., New York. 675 pp., \$10.60.

This book is an introductory textbook in business management. It is suitable for undergraduate students (except freshmen) and graduate students.

Newman has written *Business Policies and Management* and *Administrative Action*; Summer, *Factors in Effective Administration*.

The book is both eclectic and integrative. It is eclectic in that it contains material selected from a wide variety of sources. For instance, there are subjects drawn from:

- Formal organization theory
- Engineering economy
- Human relations
- General semantics
- Social sciences

It is integrative in that these diverse elements are fitted together in a neat package. The treatment of decision-making is a case in point. Under that heading are placed:

- Individual creativity
- Group creativity
- Mathematical techniques
- Human values

The use of these elements as supplements to one another in decision-making is shown in a convincing fashion. One does wonder, however, why the authors fail to bring out points of friction among the elements.

The framework of the book is composed of the processes of organizing, planning, directing and controlling. *Administrative Action* had the same framework. If students keep the frame of reference in mind, they can appreciate the unity of the book and comprehend methods of coordinating the parts of the business enterprise as well.

On the other hand, the framework deemphasizes external influences on the enterprise such as increased personal income, increased mobility and changed transportation. It also deemphasizes technological influences like automation and scientific research. In other words, the framework has the advantage of cohesiveness but the disadvantage of playing down several important topics.

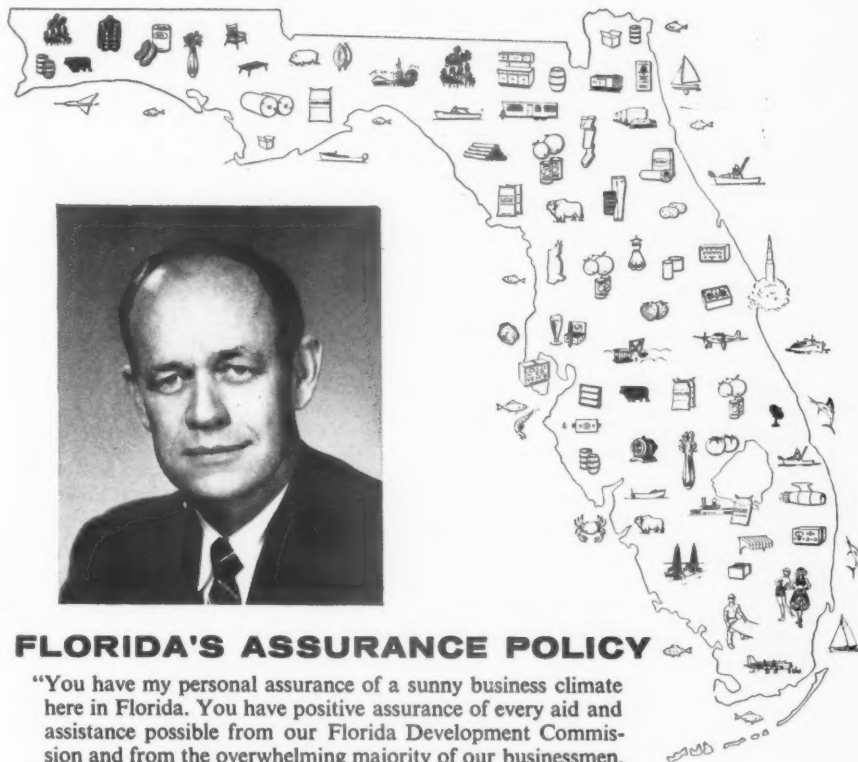
The cases in the book do offset the disadvantage to a degree. The cases provide a dramatic treatment of certain environmental and technological factors not found in the text. Students should be able to see the structure of the cases because of comments on them by the authors.

The book meets the objectives set by the authors and deserves consideration for adoption by interested professors.

ROBERT J. DAIUTE

Assistant Professor of Business Administration, Rider College.

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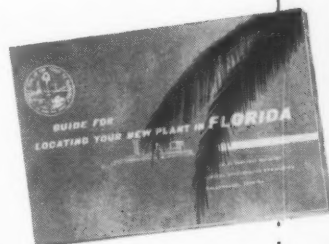
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Selected Readings in Production Control

by Edward M. Mazze and Charles S. Stein

Industry has become complex and the need for proper production control has expanded. Companies cannot afford to let the production lines become unpredictable in today's highly competitive economy. Today's customers are working on exacting production schedules. Thus they must demand that the goods they order be delivered on time. This can be assured by a proper production control system.

At one time in American business history no one man was specifically concerned with controlling the production of a company. Planning was held to a minimum as produc-

tion was limited by the conditions and machinery of the day. Today we realize that sound production control can guarantee precise delivery dates and allow management to control the manufacturing process.

There are many good textbooks, handbooks, pamphlets and studies available on *production control* written by educators and businessmen. These printed materials are representative and serve as the background for the man assigned the *production control* responsibility in the company. The following are representative of the material available in this field.

• • • • •

PRODUCTION PLANNING AND INVENTORY CONTROL, by J. F. Magee (McGraw-Hill Book Company, Inc., New York, 1958), is designed to introduce the concepts of production planning and control. The aim of the book is to bring the range of concept and technique to a point of useful application in the practical design of production planning. The text is based on the belief that inventory is a form of earning investment. Mathematics is suppressed as far as possible. Illustrations are used to varied degrees. Such a recent subject as modern scientific forecasting is discussed.

PRINCIPLES AND DESIGN OF PRODUCTION CONTROL SYSTEMS, by Evan D. Scheel, William L. Westerman and Robert J. Wimmert (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1960), is designed to develop a scientific approach to the solution of planning and control problems in any type of production activity. The authors define the interrelationships of the functions, as well as the related problem areas and their solution. They describe specific steps, in chronological order, for design and use of a production control system. Each chapter is devoted to an individual major function of production control. Outstanding features of this book include the

latest mathematical devices and statistics on control charting and linear programming.

PRODUCTION FORECASTING, PLANNING AND CONTROL, by E. H. Mac Niece (John Wiley and Sons, Inc., New York 1961), is a discussion of the three essential and inseparable functions of production management: forecasting, planning and control. This volume treats the principles of production engineering using examples of their applications. The notable features of the book include material on sales forecasting, warehouse distribution and control, economic lot sizes, electronic data processing and military production planning and control.

PRODUCTION CONTROL, by William Voris (Richard D. Irwin, Inc., Homewood, Illinois, 1956), summarizes and presents in simple, readable form the basic principles of production control and their application to industrial production. It combines the thinking and research of the pioneers and leaders in the field of industrial management and control with practical day-to-day application of fundamental theories and principles as it is used in specific manufacturing concerns. The book discusses production control in intermittent manufacturing, continuous manufacturing, the automatic factory and the small company.

PRODUCTION CONTROL, by Nyles V. Reinfeld (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1959), combines the specific with the general to form a basic denominator. The author takes from general principles and specific incidents to develop

a framework for production control. He points out what must be done and provides a frame of reference within which something can be done. Included are discussions on phases of forecasting, principles of scheduling, planning, and controls in production.

PLANNING PRODUCTION, INVENTORIES AND WORK FORCE, by Charles C. Holt, Franco Modigliani, John F. Muth and Herbert A. Simon (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1960), offers the latest methods for making optimal decisions on production in the modern factory warehouse system. By using an analytical and mathematical approach, the solving of production control problems are made easier. The study presents economical processes and profitable techniques that will help management improve production service, decrease costs and reduce inventories. It also furnishes mathematical models for decision-making problems and discusses optimum levels for production lots and for shipments.

PRODUCTION CONTROL, by Lawrence L. Bethel, Walter L. Tann, Franklin S. Atwater and Edward E. Rung (McGraw-Hill Book Company, Inc., New York, 1958), has been written primarily for the use of classes in production control. The authors have segregated this relatively small phase of the total field of industrial management in an attempt to make a more comprehensive presentation of instructional material that will appropriately serve industrial needs. They have sought only to present basic principles and to illustrate those principles with actual examples of current industrial practice. Case problems are presented at the ends of chapters as an opportunity for the student to exercise methods of analysis and to make application of control principles.

MODERN APPROACHES TO PRODUCTION PLANNING AND CONTROL, edited by Robert A. Pritzker and Robert A. Gring (American Management Association, New York, 1960), is divided into four main sections. The first three of these deal with the separate phases of production planning and control: organization and administration; planning tools and control techniques; and the mechanical and mathematical aids which have been added to the production planning and control manager's kit in recent years. Throughout this part of the book, specific steps in production planning and control are examined in considerable detail. To provide actual company experience with production control, a fourth section of the book was established. This section contains actual examples of company experience in production control.

HANDBOOK OF INDUSTRIAL ENGINEERING AND MANAGEMENT, edited by W. Grant Ireson and Eugene L. Grant (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1955), is one of the most comprehensive, one-volume guides to industrial engineering and management methods. Each section of the handbook is devoted to a specific management problem. This hand-

book will be useful to other people besides practicing industrial engineers and students of industrial engineering and management. It will help all persons, engineers and others, who require concise reference material on various matters relating to industrial engineering and management. The authors of the various chapters of the Handbook have tried to stress general principles and to illustrate their applications to industry rather than to merely describe details of industrial practice. Thus the topic of production control is viewed as a particular application of general principles regarding factory systems and procedures.

MANAGEMENT GUIDE FOR PRODUCTION CONTROL, by Bernard T. Lewis and William B. Pearson (John F. Rider Publisher, Inc., New York, 1960), is concerned with the functions and procedures which relate to production control, applications of mathematical techniques to scheduling, and applications of electronic data processing and punch card systems to production control. The guide is designed to give the production manager some insight into the currently existing techniques that can be applied to make production planning and control scientific enough for proper management decision-making.

INDUSTRIAL ENGINEERING HANDBOOK, edited by H. B. Maynard (McGraw-Hill Book Company, Inc., New York 1956), contains a description of the best in practical industrial engineering practices. Each chapter has been prepared by an expert in the phase of industrial engineering, which he discusses. The Handbook is primarily a reference book for the practicing industrial engineer. At the same time, it will also prove useful to other management men whose work is related to, or affected by, the work of the industrial engineer. The section on production control includes material on the organization of the department, the functions of control and the different types of charts available for the control process.

PRODUCTION HANDBOOK, edited by Gordon B. Corson (Ronald Press, Inc., New York 1958), Sections 2 and 3, synthesizes from the vast literature in the field, the important facts, accepted principles and tested procedures upon which efficient cost-saving manufacturing operations are based. For every production control function analyzed in this Handbook, the basic concepts are formulated, the principles explained, planning and designing described, and systems, methods and operating practices concretely detailed and implemented with cases, forms, tables and charts.

PRODUCTION CONTROL, by Franklin G. Moore (McGraw-Hill Book Company, Inc., New York, 1959), includes new material on forecasting, estimating, the learning curve, manpower loading, inventory control and operations research. The main pattern of the book separates manufacturing into intermittent and continuous manufacture and explains how production control is used by the different types of manufacturing processes.

Better Economic Understanding Needed, Recent Survey Shows

A recent survey of school children by the Opinion Research Corp. confirms an earlier study which Republic Steel Corp. made with thousands of its employees:

The average American, young or old, knows little about the economic and political principles behind our democratic way of life.

Sample questions showed that:

60% believe labor is the only productive factor.

59% believe all increases in productivity should be paid out in higher wages.

45% believe Communism needs no capital.

34% believe the "Electoral College" is a special school for Congressmen's children.

To meet this demonstrated need for better economic understanding, Good Reading Rack Service, Division of Koster-Dana Corp., New York, has announced a new management-employee communications service, covering employee economic education.

It consists of a series of 10 booklets, each covering an important area of our economy. This is the first complete course of 10 booklets in basic economics, scientifically designed for employee reading.

The author is L. C. Michelon, management consultant and coordinator of Communications of Republic Steel Corporation, Cleveland. He is also the author of the text, *Basic Economics*.

The first three booklets in the series are: 1) "Profits—The Key to Economic Growth and Job Security" 2) "Compete or Retreat—The Ability to Compete Is Survival Insurance" and 3) "Productivity—The Magic Lamp of Progress".

The next three booklets soon to be available, are: 1) "Competitive Costs—The Sure Way to Customers and Jobs" 2) Taxes—The Case of the Vanishing Dollar" and 3) "Your Personal Economics—Thrift and Prudence Pay Off".

Survey, Anyone?

Most American companies consider the health of their employees an important asset, one which they are spending substantial time, money, and effort to protect. So says the Bureau of National Affairs, Inc., in a report on the results of a recent survey of industrial health programs in U.S. industry.

A survey of 171 companies participating in BNA's Personnel Policies Forum for 1961 disclosed that every one of the companies provides some kind of industrial health program for its employees.

Executive health programs are maintained by 52 per cent of larger and 30 per cent of smaller reporting companies. In most cases, these programs stress prevention of illness rather than curative treatment; all of them include a comprehensive physical examination, usually on an annual basis.

Industrial health programs pay for themselves, the survey reports. A few of them

mentioned direct money savings in terms of reduced insurance premiums. The majority, however, say the programs pay off as a result of the over-all benefits derived; for example, reduction in lost time from injuries or illnesses, reduced frequency and severity of accidents, lower absentee rates, prevention of diseases and injuries, and improved employee morale.

New Organization to "Gang" Foreign Trade Fair Exhibits

U. S. and Canadian businessmen will soon be able to participate in foreign international trade fairs without leaving their desks. Their products will be transported, displayed, and promoted at the fairs in a "package deal" which will cost much less than would an individual exhibit.

Called Intermart, the organization plans to buy space *en bloc* at the fairs and set up co-operative travelling exhibits of similar products, and also to handle individual company displays at one or more fairs. Intermart will staff the exhibits with multi-lingual representatives and assist in securing overseas sales agents.

Operated as a Canadian company with a Toronto head office, Intermart plans a European headquarters in Basel, Switzerland. Intermart representatives are now established in France, Germany, Switzerland, Sweden, and Britain.

All types of products will be handled from construction machines to canned goods.

Obsolescence Gap

Chicago—The "obsolescence gap" may be a bigger danger to the United States than the space gap, an industry leader warned recently. Robert Sheridan, president of Nationwide Leasing Company, Chicago, said that the proportion of industry's equipment that is more than 10 years old has been increasing at the rate of 2% annually since the end of World War II. This was disclosed by a national study conducted for the company by an independent research organization.

"Today 68% of all equipment being used is more than 10 years old," Sheridan said. "At the end of World War II, this figure was 38%. This growing obsolescence gap on our industrial front may well be a greater danger than the space gap. The age of our industrial plant is approaching what it was in 1940 at the end of the Great Depression, when 72% of the equipment in use was more than 10 years old." . . .

"This increase in the age and decline in efficiency of America's industrial plant have been concealed by the great increase in capital spending since 1945," Sheridan said. "Of the \$360 billion spent since 1947 on plant and equipment, less than 40% has been spent on modernization. The bulk has gone for expansion of capacity. The result is that for the past decade industrial output per employee has increased an average of only 2% a year in the United States, while Western Europe has increased 4.5% and Russia by 6% annually."

Arthur H. Dix, Vice President in Charge of Research for Conover-Mast Publications, Inc., spoke to the New York S.A.M. Chapter on October 2, on the important subject of "Customer-Oriented Managing."

Vice President in Charge of Research of one of the largest industrial publishing houses in the country, Mr. Dix told why managers needed a customer focus and why the entire organization should be sales minded — a point of vital interest to every alert manager in a competitive economy.

Mr. Dix has a distinguished reputation as a speaker and writer on industrial marketing and related topics. Chapter members took part in a question and answer period after his talk.

The program was in charge of Mr. Charles Vlahos, Recording Secretary for the New York Chapter, and a member of the staff of Conover-Mast Publications, Inc.

In an unusually attractive four page 8½ x 11 folder, the 1961-62 program of the Wilmington Chapter was announced by its President, Martin F. Pack.

The theme of the annual program will be, "Improving Profits Through Better Management," and topics, dates, and pictures for a number of the speakers were included in the presentation.

Chapter Presidents who need suggestions for improving the format of their programs are encouraged to write for a copy of this program. Mr. Pack's address is: % S.A.M., Box 922, Wilmington, Del.

The Southern California Region #13, under the supervision of Mr. George H. Rathmell, Regional Vice President, held its first meeting of the year on August 19, 1961, at the Corona Del Mar Hotel.

Following the final report of the outgoing Regional Vice President, Mr. Robert Twombly, Mr. Rush Meadows, San Diego Chapter, was elected Alternate Regional Vice President.

It was the opinion of those present that the regional operations of Southern California could be strengthened.

It appeared that a more formal organization including representatives from the chapters assigned to specific interests and activities such as programs, publicity, university chapters, attendance, and membership, would be of assistance in improving these activities in the chapters in the region.

Approximately 50 management personnel from government, educational institutions, and leading business concerns in the Greater Baton Rouge Area were present Tuesday night, September 12, at the Bellemont Motor

Hotel Restaurant, to hear Walter Mitchell, Executive Director of S.A.M., present the Charter for the newly organized Greater Baton Rouge Area Chapter.

Through its programs of management development this chapter promises to be one of the outstanding S.A.M. Chapters in the nation.

Its officers are:

President	Edmond Boudreaux
Vice President—Activities	Albert Jones
Vice President—Membership	Charles Burns
Vice President—Publicity	Robert L. Taylor
Secretary-Treasurer	John E. Farr

Members of the Board of Directors are:

William H. Ruff
Miller L. Martin
Raymond V. Lesikar
C. O. Roberts
Irby P. Dupont
Al Livingston

The 32 Charter Members of the Chapter are:

Edmond Boudreaux
Austin Seay Bridgforth, III
Floyd J. Brumby
Charles Buzbee
Charles W. Burns
Arthur Carter
N. H. Chamberlain
Bertrand P. Dooley, Jr.
Irby P. Dupont
William J. Doran, Sr.
John E. Farr
J. D. Freedlund
Herbert G. Hicks
Albert Jones
Keith Lanneau
John Lebert
Raymond V. Lesikar
A. R. Livingston
Eugene McCann
Robert E. Marler, Jr.
Miller L. Martin
Albin G. Pass
William T. Price
Evans Roberts, Jr.
C. O. Roberts
John C. Runan
William H. Ruff
C. A. St. Romain
Robert LeRoy Taylor
John Virden
Jimmie Wax
Luther D. Young

The formation of the chapter was the result of some intensive work carried on for a period of months by the organizing committee composed of Mr. Ed Boudreaux, Chairman; Dr. Leon Megginson, Professor of Management, College of Business Administration, Louisiana State College; Mr. Charles W. Haase, Assistant Manager, Citizen's Saving and Loan Association; and Mr. Charles W. Burns, Personnel and Service Officer, Louisiana Dept. of Highways.

Charles (Jeep) McCurry, Regional Vice President of the Southeastern Region No. 9, met with the new officers of the Georgia Chapter in the Executive Board Room of Rich's Inc. in Atlanta on Monday, August 28 in a reorganization movement of this chapter.

The Georgia Chapter should make considerable progress during the coming months under the capable direction of Mr. Cecil S. Semple, Vice President-Operations, Rich's Inc., who will serve as President during the 1961-62 year. Others present at the meeting were Mr. Richard Norman, Membership Vice President; Mr. Fred Hafling, Secretary; Mr. Dudley Fouche, Treasurer; Mr. Earl Williams, Vice President-Publicity; and Wm. P. Layton, Chapter Service Director of the National Headquarters.

Mr. McCurry conducted an inspiring session and covered all phases of administration of a newly organized chapter.

Other S.A.M. Chapters in the Southern Region which are undergoing reorganizational efforts are the Nashville Chapter, with Kirk Low, former President, serving as Chairman of the Reorganization Committee, and Louisville, with Mr. Donald Stohlman doing the spade work for this chapter.

On September 10, a group of Oklahoma City business leaders met with Walter Mitchell, Executive Director of S.A.M., at the Petroleum Club, to consider the establishment of a chapter of the Society in Oklahoma City.

The meeting was spearheaded by Mr. John Boardman, Boardman Machinery Co., who introduced Walter Mitchell.

Among those attending were: Mr. Robert Spahn, Oklahoma and Times; James Roberson, Roberson Steel Company; Jack Clark, Clark Motors; Messrs. Stanley and Robert Lee, Leeway Trucking, Messrs. John Boardman and Harris Lunn of the Boardman Company; James Daugherty, Manager, Western Electric Plant; Professors Shuman and Bishop, of the University of Oklahoma.

Practical Management, a course developed by the Long Island Chapter of the Society, is presented each week by the Uniondale (N. Y.) Adult Education Center and Adult Services. It is taught by Mr. J. R. Edinger, Director of Manufacturing of Pickering and Company, Plainview, Long Island. Ray is Vice President of Seminars and Projects for the Long Island Chapter.

The catalogue has this to say about the course: "Effective managers are not born—but result from a combination of personal energy, experience and training." The Long Island Chapter of S.A.M. has developed this course to provide management oriented individuals with a broad insight into the functional activities within the divisional level of management. The course features prominent speakers from Long Island industry and colleges, who provide participants with the practical guide posts in the specifics of managerial responsibility; management control system (PERT-PET-COST), accounting op-

eration, marketing methods, product value analysis, electronic data processing applications, inventory control, cost collections, payroll, etc.)."

It is possible that many other S.A.M. Chapters which have contact with extension divisions and schools of business administration in both private and state universities would be in a position to promote courses of this kind.

Recently the Long Island S.A.M. Chapter began using a pocket identification card which serves not only for identification purposes at chapter meetings, but also tells the story of S.A.M. on one side and provides an application form on the reverse side.

Progressive chapter presidents who would like to see this promotional gimmick are encouraged to write to Mr. A. V. Swerz, President of the Long Island Chapter. His address is Sperry Gyroscope Corporation, IA-8, Great Neck, N. Y.

The first Regional Chapter Officers' Workshop of the 1961-62 year was held in Atlanta on August 29 with four chapters participating. Representatives from the Georgia Chapter, Chattanooga Chapter, Alabama Chapter, and St. Petersburg Chapter, were present to discuss matters of importance to all S.A.M. Chapters. The workshop was conducted by Mr. Harris Saunders, Regional Vice President of the Southern Region #10, with the cooperation of Mr. Grady E. Gant, Alternate Regional Vice President of the Southern Region.

The following topics were covered: 1. Developing a chapter program. 2. Chapter administration. 3. Chapter Evaluation Plan. 4. Advanced Management Course. 5. Building membership. 6. Promoting attendance. 7. Getting good publicity. 8. Management Leadership Development Course. 9. University Chapter Program.

Wm. P. Layton, Chapter Service Director of the National Headquarters, was present and contributed to the discussions.

Recently the University Division of S.A.M. distributed an interesting booklet, "Survey of University Chapter Activities of Senior S.A.M. Chapters," which resulted from action taken by a committee appointed by James E. Newsome, former President of S.A.M. and now Board Chairman.

In a covering letter, Mr. Newsome stated that he felt one of the most important moves he could make as President would be the provision for regional administration of the liaison between the University and Senior chapters, running parallel to the regional structure of S.A.M. Senior chapters which had proved so fruitful.

Professor Harold Fischer, President of the University Division, made a significant statement in his covering letter when he said, "During the past two years more than 700 graduating seniors have advanced to the second stage, post-graduate membership in the senior chapters. This should continue to the benefit of business, the individual, and the Society.

Under the capable direction of Carl B. Genrich, Chairman of the Senior Chapters' Advisors' Committee to the University Division of S.A.M., and a member of the Metropolitan Planning Department of Indianapolis, Indiana, and Vice Chairman J. Alan Ofner of J. C. Penney Co., New York, the Committee has produced an interesting book which gives the general objectives, the status, the general duties, and the specific duties of chapter vice presidents in charge of student activities.

All chapter presidents and vice presidents in charge of student activities will be able to use this survey as a working manual for increased interest and liaison with university student chapters.

The survey is listed as Operations Manual #5.5-0, June 16, 1961, and a few additional copies are available at S.A.M. Headquarters.

At the kick-off meeting of the Cleveland Chapter on September 13, 1961, Walter Mitchell, Jr., Executive Director of S.A.M., spoke on "European Common Market—Coming Challenge to S.A.M." In a discussion which followed it was indicated that many of the Cleveland industries represented at the meeting had already felt some direct or indirect effects of this competition.

A program which many S.A.M. Chapters might sponsor with colleges and universities in their areas is the new "Professional Roundtable for Management Information Specialists" being organized by New York University.

This roundtable will provide a forum for the exchange of information about new ideas, practices, and concepts in this important field. The objectives of the roundtable are:

1. To exchange ideas, information about techniques, and experience in management information systems.

2. To advance concepts and techniques for the design of management information systems and to encourage and conduct appropriate research.

3. To promote the publication of manuscripts describing new techniques and successful applications.

4. To encourage the development of a clearing-house of literature relating to management information systems.

5. To cooperate with business, educational, professional, governmental, and other interested groups and associations. Some of the subjects to be explored during the 1961-62 year are:

Current Concepts and Practices in Information Storage and Retrieval.

Management by Objectives.

Information Requirements in the Engineering Field.

Information Problems in the Heavy Construction Industry.

Wanted, A Revolution in Administration!

Scan-O-Graph, A New Management Information Tool.

Better Reporting Systems.

The Veterans' Administration's New Management Information System.

The Chapter Officers' Workshop of the Midwestern Region #9 was held at Kansas City on September 9, under the direction of the Regional Vice President, Mr. Howard R. Dearborn. Mr. Walter Mitchell, Executive Director of S.A.M., was present as the National representative.

Officers of the St. Louis and Kansas City Chapters were present, plus University Chapter representatives from the University of Arkansas, St. Louis University, and the University of Kansas City. Those attending were:

Walter Mitchell, Jr., S.A.M. Executive Director.

Robert S. Young, President, St. Louis Chapter.

Wm. H. Wilson, St. Louis Chapter.

Allin M. Jackson, Pres.—Kansas City Chapter.

Lloyd E. Marsh, V. P.—Kansas City Chapter.

Roger P. Campbell, V. P.—Kansas City Chapter.

Payson W. Lowell, V. P.—Kansas City Chapter.

Mrs. Fran Parks, Secretary, Kansas City Chapter.

John Vrentas, Kansas City Chapter.

James E. Estes, Faculty Advisor—Univ. of Arkansas.

Claude B. Crumpler, Jr. Pres.—Univ. of Arkansas.

Wm. S. Davis, Jr., Alternate Regional Vice Pres.—St. Louis Chapter.

Howard R. Dearborn, Regional Vice Pres.—Kansas City Chapter.

The chapter reviewed several plans and exchanged viewpoints on the entire range of chapter operations. A plan was developed in cooperation with the University Chapter representative for a better placement exposure for those students graduating from the universities located outside of the larger industrial areas. A means of facilitating recruiting of students from the Universities in the area by S.A.M. member companies was drafted.

Jack L. Walker, Director of Human Relations, S. W. Farber, Inc., and President of the Westchester Chapter, was the luncheon speaker on Wednesday, October 4, for the Cost Reduction Seminar held at the Westchester Town House in Yonkers, New York. His subject was, "Human Relations as an Approach to Cost Reduction."

As President of the Westchester Chapter, Jack is a dynamic leader in promoting management programs and is constantly looking for new and better ways of solving management problems. In addition to having had a wide experience in the field of personnel, and industrial and employee relations, Jack has been a marketing and management consultant and has taught at the City College of New York, Pace College, and Manhattan College.

Program Chairmen of S.A.M. Chapters who are interested in developing a program of this kind should write Jack at S. W. Farber, Inc., 415 Bruckner Blvd., New York 54, N. Y.

Contract Research

"Can the Research Scientist Acquire a Management Attitude?" is the title of, and the basic question underlying, a printed discussion now being offered by Battelle Memorial Institute to representatives of industry concerned with research and development. Written by M. R. Nestor, Battelle's manager of project development, the statement is one of a series on the procedures and characteristics of contract research for industry being published by the Columbus, Ohio, research center.

In this statement, Nestor makes the point that industrial management people and research professionals have much in common, including a high degree of creativeness. Industry's practical needs and the professional's desire for creative freedom are compatible, he asserts.

Case histories are cited in which the research professional's suggestions, for work in areas not previously considered, are applauded by management men responsible for their companies' research and development activities. Such initiative is encouraged, according to Nestor.

The Battelle spokesman reports that the average research professional wants to see the results of his work applied to industrial production and social betterment. For this reason, he acquires a feel for economics and will not recommend proposed research projects, if technological and market factors indicate that the research effort will not fill a real need.

* * *

Student's Aid

Nearly half of the students attending evening classes at the University of Rochester last year received financial assistance toward their education from employers. During 1960-61, 44 Rochester firms helped to finance the studies of 1,806 employees in the University's Evening Session. During the previous year 32 firms contributed to their employees' enrollment in the University of Rochester courses. The largest number of students receiving tuition aid last year came from the Eastman Kodak Company, followed by Stromberg Carlson Division of General Dynamics, Bausch and Lomb Optical Company, and Xerox Corporation.

"The program of financial support for college evening study represents an exceptional degree of statesmanship by Rochester industry," reported Dr. McCambridge, University Secretary and Treasurer and Director of Registration. He said the program is unusual both in the large number of participating firms and in the large number of employees who take advantage of the program.

"Companies and employees alike seem to feel that there are real benefits in higher education — both in helping employees to realize their personal talents and in making them potentially able to contribute more effectively in their work," he said.

The University's evening courses range from accounting to variational calculus, and include undergraduate, master's and doctoral work.

AIIESEC, U. S.

This affiliate of an international organization of business students sponsors a unique training program. Through it American and foreign students of business and economics are provided with the opportunity to improve their knowledge of actual business operations in each other's countries through a reciprocal exchange of training positions.

At the international Congress, held annually in March, traineeship offers are matched up with application forms of foreign students. After the Congress, each participating firm receives applications for approval. When a firm accepts an applicant, it commits itself to paying the trainee an adequate living allowance (\$60 to \$80 per week).



Only upperclass or graduate students who intend to pursue a career in business or economics, and who have had some practical business experience, are eligible to participate in the program. All applicants are carefully screened at member schools by joint student-faculty committees. These committees examine academic and extra-curricular records, recommendations, and past business experience.

The program provides an inexpensive way for a company to look over potential employees without committing itself for more than a limited period.

Address:

AIIESEC — U.S. Executive Secretariat
51 E. 42nd St.
New York 16, N. Y.

Inquiries will be referred to the Committee nearest the inquirer, and further details will be arranged to meet specific needs.

* * *

Recruiting Control

More than 75% of a group of 200 industrial concerns favor a ban on recruiting engineers and scientists during professional conventions and meetings. An even larger group, 87% of the sample, indicated it would abide by a general industry agreement to halt all convention recruiting. The

companies, all of whom actively recruit technical personnel, responded to a survey by Deutsch & Shea, Inc., New York manpower consultants.

Many companies base their "yes" answer on the belief that convention recruiting is interfering with normal convention activities. "I have long felt," commented the division manager of a major electronics company, "that heavy recruiting activities have sapped the vitality of the technical conventions and are rapidly degenerating the quality of the meetings."

Seen as a major obstacle to an effective ban by both sides, however, is the problem of enforcing it. Many doubt the possibility of developing a workable system; others comment on the problem of mass search organizations, employment agencies, etc. "While we agree that a ban on recruiting at such meetings is a very good idea in theory," wrote the personnel director of an electronics firm, "we have serious doubts as to its practicality . . . there would have to be 100% cooperation from industry for a ban to be effective. Secondly, we feel that employment agencies would have the conventions all to themselves."

* * *

Computer Simulates Factory Operation

A new computer technique called "job shop simulation" is being used by Hughes Aircraft Company to eliminate costly trial-and-error methods of improving shop performance, the company disclosed recently.

The simulation technique, which pre-tests various management plans for providing "more defense for less money," is being applied by the company's communications division which manufactures airborne and ground-based equipment for the U. S. Air Force.

The company reports that an entire month's work can be represented on a computer in 15 minutes. Alternate management plans and key facts about a production line are entered on punch cards and fed into the computer, which digests the information, then spews out the results to be achieved from each of the proposed plans. Management then can select the best solution.

In a recent test conducted at the communications division's machine shop, Hughes and IBM computer specialists set up several possible solutions to a known bottleneck to check the computer's ability to provide realistic answers to problems. They fed in information simulating such items as machine capacity, manpower levels, and machining times. The computer quickly spotted the bottleneck and confirmed management's solution to the problem.

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ADVANCED MANAGEMENT